Project1

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Generating Hypotheses:

The variables that we decided to hone in on for our exploratory data analysis are:

- Quantitative: CARS (# cars w/hazmat), CARSDMG (# hazmat cars that were damaged or derailed), CARSHZD (# of cars that released hazmat), MONTH, DAY, TIMEHR, TIMEMIN, AMPM, TRNSPD, HIGHSPD
- Qualitative: RR2 (second railroad involved), TYPE (accident type), TYPEQ (car type), Cause (manually assigned from CAUSE), STATION, WEATHER, VISIBLTY

Loading libraries and data, settign directories, and processing data

```
#Import libraries
library(tidyverse)
```

```
## -- Attaching packages ---------------------------------------------------------------------------

## v ggplot2 3.3.2     v purrr   0.3.4
## v tibble  3.0.3     v dplyr   1.0.2
## v tidyr   1.1.2     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.5.0

## -- Conflicts ------------------------------------------------------------------------------------
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(tibble)
library(dplyr)
library(ggplot2)
library(ggfortify)
library(lattice)
library(GGally)
```

```
## Registered S3 method overwritten by 'GGally':
##   method from
##   +.gg   ggplot2
```

```r
library(MASS)
```

```
##
## Attaching package: 'MASS'

## The following object is masked from 'package:dplyr':
##
##     select
```

```r
library(lindia)
library(ggpubr)
# install.packages("devtools")
library(devtools)
```

```
## Loading required package: usethis
```

```r
# install_github("vqv/ggbiplot")
library(ggbiplot)
```

```
## Loading required package: plyr

## ------------------------------------------------------------------------------

## You have loaded plyr after dplyr - this is likely to cause problems.
## If you need functions from both plyr and dplyr, please load plyr first, then dplyr:
## library(plyr); library(dplyr)

## ------------------------------------------------------------------------------

##
## Attaching package: 'plyr'

## The following object is masked from 'package:ggpubr':
##
##     mutate

## The following objects are masked from 'package:dplyr':
##
##     arrange, count, desc, failwith, id, mutate, rename, summarise,
##     summarize

## The following object is masked from 'package:purrr':
##
##     compact

## Loading required package: scales

##
## Attaching package: 'scales'
```

```
## The following object is masked from 'package:purrr':
##
##     discard

## The following object is masked from 'package:readr':
##
##     col_factor

## Loading required package: grid

##
## Attaching package: 'ggbiplot'

## The following object is masked from 'package:ggfortify':
##
##     ggbiplot
```

```
library(data.table)
```

```
##
## Attaching package: 'data.table'

## The following objects are masked from 'package:dplyr':
##
##     between, first, last

## The following object is masked from 'package:purrr':
##
##     transpose
```

```
library(gplots)
```

```
##
## Attaching package: 'gplots'

## The following object is masked from 'package:stats':
##
##     lowess
```

```
library(boot)
```

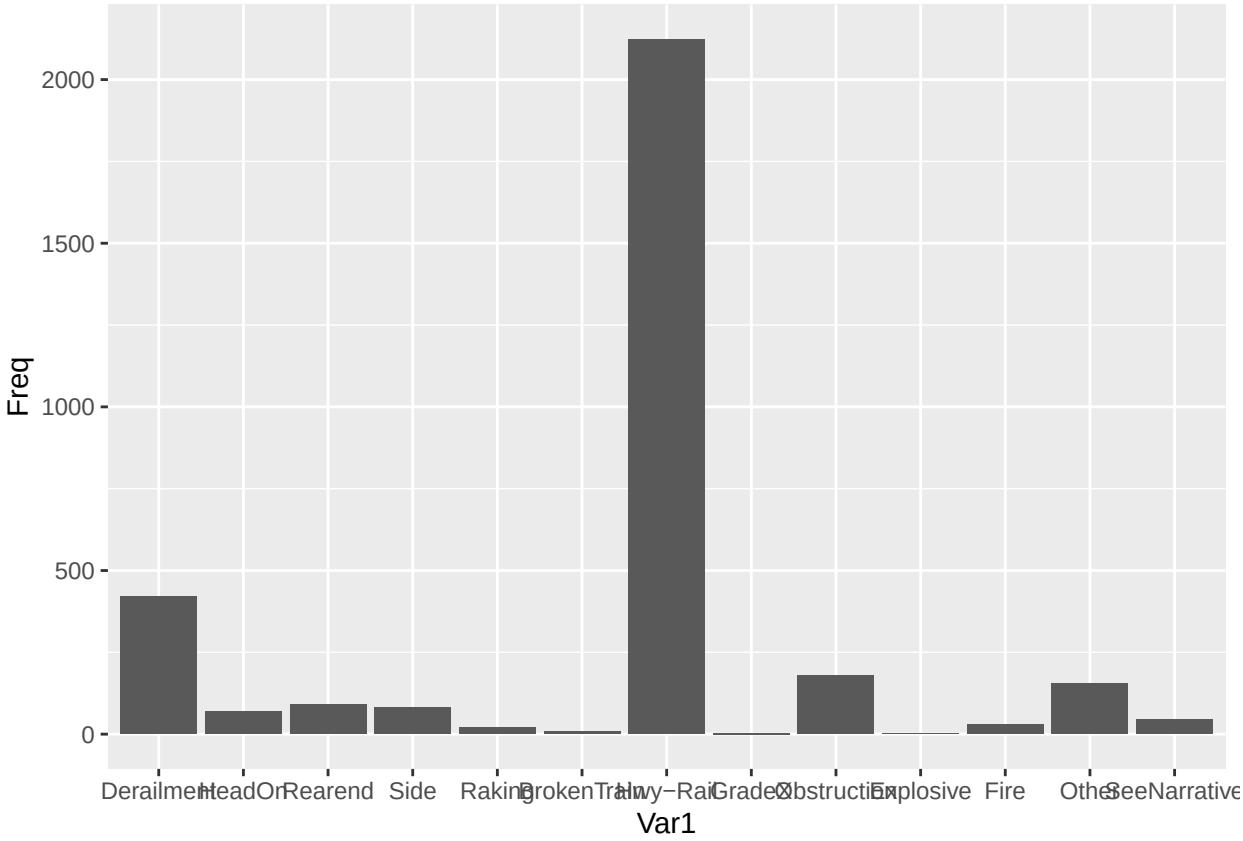
```
##
## Attaching package: 'boot'

## The following object is masked from 'package:lattice':
##
##     melanoma
```

```r
source("http://www.phaget4.org/R/myImagePlot.R")

#Set directories:
setwd('..')
wd <- getwd()

sourcedir <- paste0(wd, "/Source/")
traindir <-  paste0(wd, "/Data/TrainData")


# Source AccidentInput
setwd(sourcedir)
source("AccidentInput.R")
source("SPM_Panel.R")
source("PCAplots.R")

# Data Procesing

## Create list of dataframes
acts <- file.inputl(traindir)


## Combine all data into a single dataframe

totacts <- combine.data(acts)

## Process data variables to be easier to work with

### TYPE
totacts$TYPE <- factor(totacts$TYPE, labels = c("Derailment", "HeadOn", "Rearend", "Side", "Raking", "Bi

### TYPEQ
totacts$TYPEQ <- factor(totacts$TYPEQ, labels = c("Freight", "Passenger", "Commuter", "Work",  "Single"

### WEATHER
totacts$WEATHER <- factor(totacts$WEATHER, labels = c("clear", "cloudy", "rain",
                                                      "fog", "sleet", "snow"))

### VISIBLTY
totacts$VISIBLTY <- factor(totacts$VISIBLTY, labels = c("dawn", "day", "dusk", "dark"))

### Cause
totacts$Cause <- rep(NA, nrow(totacts))

totacts$Cause[which(substr(totacts$CAUSE, 1, 1) == "M")] <- "(M) Miscellaneous Causes Not Otherwise Lis
totacts$Cause[which(substr(totacts$CAUSE, 1, 1) == "T")] <- "(T) Rack, Roadbed and Structures"
totacts$Cause[which(substr(totacts$CAUSE, 1, 1) == "S")] <- "(S) Signal and Communication"
totacts$Cause[which(substr(totacts$CAUSE, 1, 1) == "H")] <- "(H) Train operation - Human Factors"
totacts$Cause[which(substr(totacts$CAUSE, 1, 1) == "E")] <- "(E) Mechanical and Electrical Failures"

totacts$Cause <- factor(totacts$Cause)

### Multi Railroad
```

```
totacts$MultiRR <- rep(NA, nrow(totacts))
totacts$MultiRR[which(totacts$RR2 == "")] <- FALSE
totacts$MultiRR[which(totacts$RR2 != "")] <- TRUE

### Time of day

for (i in 1:length(totacts)){
  if (totacts$AMPM[i] == 'PM'){
    totacts$Time24hr[i] <- totacts$TIMEHR[i] + 12 + totacts$TIMEMIN[i]/60
  }
  else{
    totacts$Time24hr[i] <- totacts$TIMEHR[i] + totacts$TIMEMIN[i]/60
  }
}

## Remove duplicates
totacts_DR <- totacts[!(duplicated(totacts[, c("INCDTNO", "YEAR", "MONTH", "DAY", "TIMEHR", "TIMEMIN")]

## Create dataframe with only accidents with 1 or more casualty
totacts_DR$Casualty <- (totacts_DR$TOTINJ + totacts_DR$TOTKLD)
totacts_wCasualties_DR <- subset.data.frame(totacts_DR, totacts_DR$Casualty>0)
rownames(totacts_wCasualties_DR) <- NULL

## Creating extreme accident cost dataframe
plt_box <- ggplot(totacts_DR, aes(y=ACCDMG)) + geom_boxplot()
upper <- ggplot_build(plt_box)$data[[1]]$ymax
xdmg <- totacts_DR[totacts_DR$ACCDMG > upper,]

### Remove 9/11
xdmg <- xdmg[-186, ]

## Creating extreme casualties dataframe
plt_box <- ggplot(totacts_wCasualties_DR, aes(y=Casualty)) + geom_boxplot()
upper <- ggplot_build(plt_box)$data[[1]]$ymax
xcas <- totacts_DR[totacts_DR$ACCDMG > upper,]
```

Exploratory Data Analysis for Accidents with Casualties

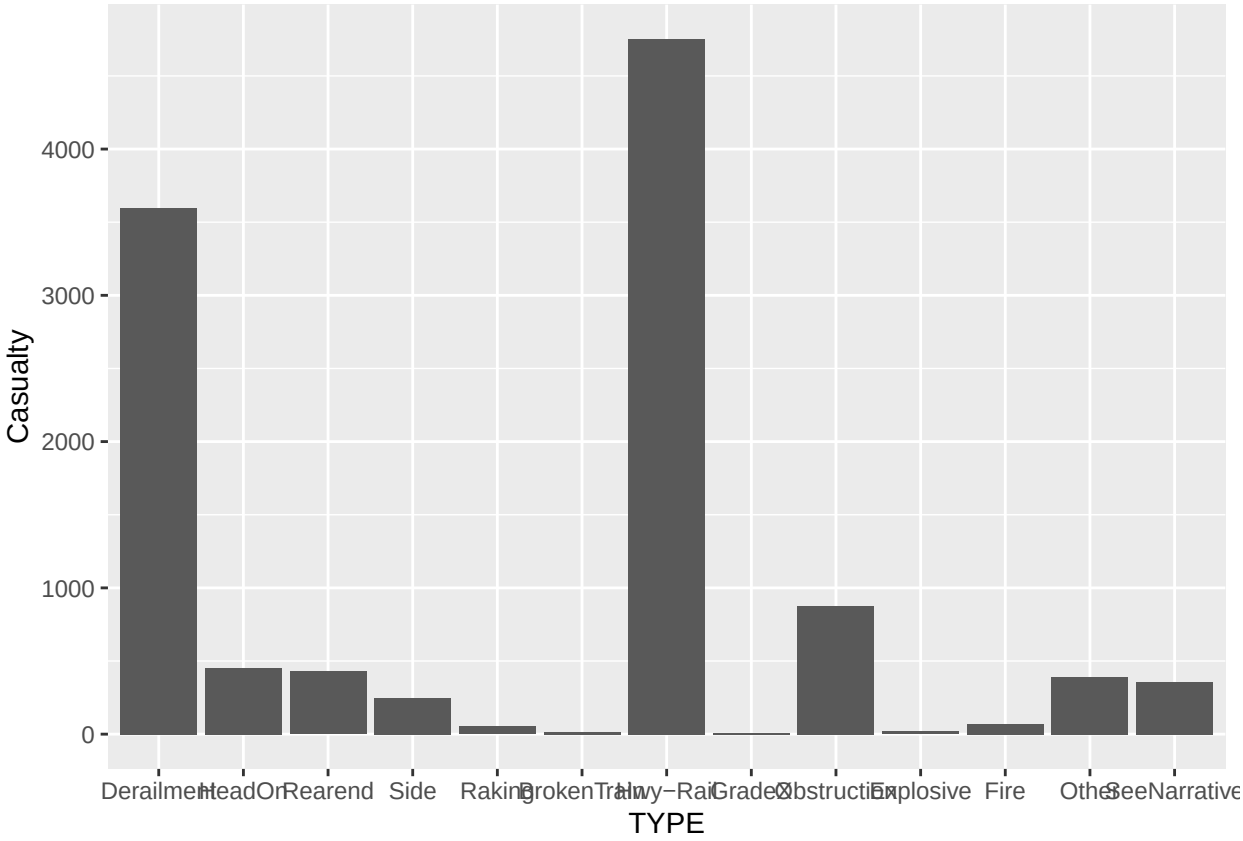
```
# Exploration:
## Accident frequency by type
ggplot(as.data.frame(table(totacts_wCasualties_DR$TYPE)), aes(x = Var1, y= Freq)) + geom_bar(stat="iden
```




```
print("Most accidents with 1 or more casualties are of type highway-rail")
```

```
## [1] "Most accidents with 1 or more casualties are of type highway-rail"
```

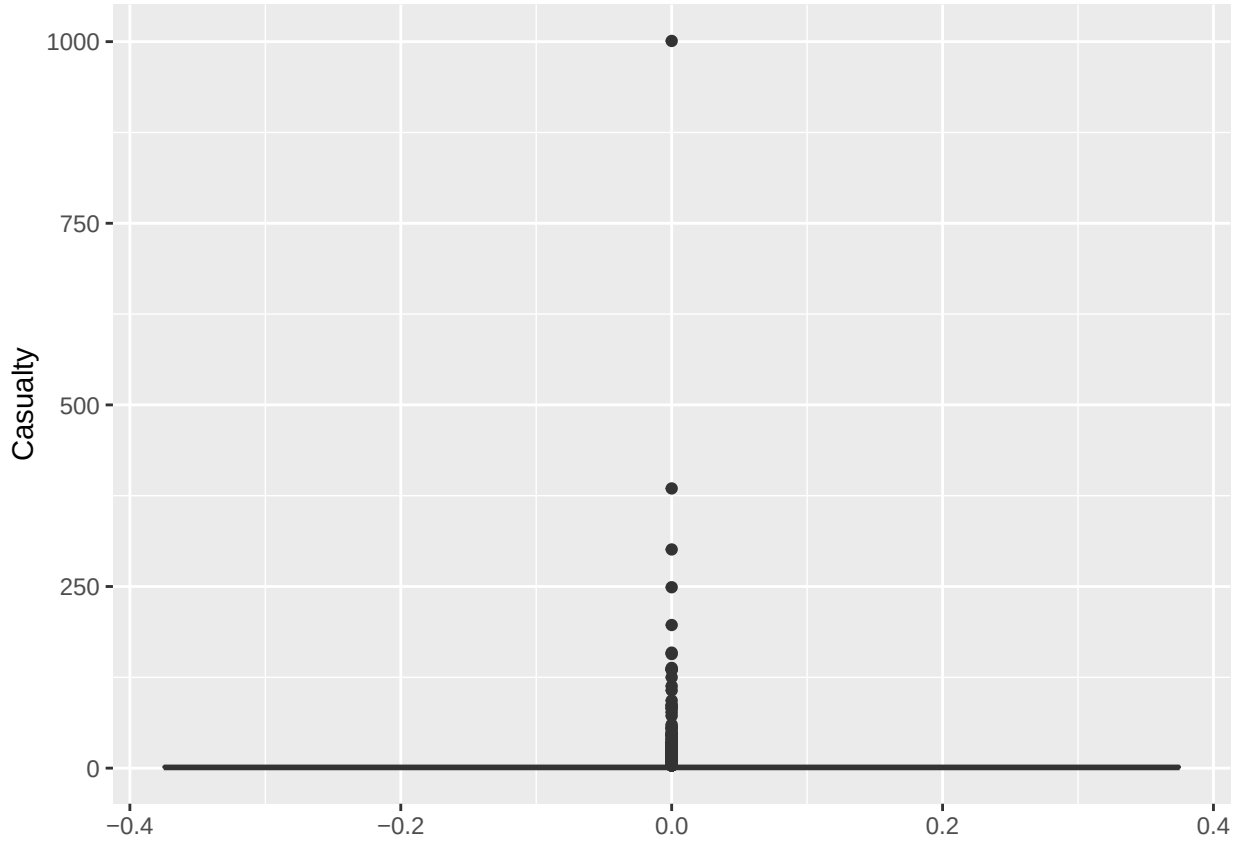
```
## Total casualties by type:
ggplot(totacts_wCasualties_DR,aes(TYPE,Casualty)) + geom_col(na.rm=TRUE)
```




```
print("Highway-rail is also the category with the most number of casualties, but when comparing this pl
```

```
## [1] "Highway-rail is also the category with the most number of casualties, but when comparing this pl
```

```
## Inspecting extreme events
plt_box <- ggplot(totacts_wCasualties_DR, aes(y=Casualty)) + geom_boxplot()
plt_box
```




```
upper <- ggplot_build(plt_box)$data[[1]]$ymax
print("Upper whisker:")
```

```
## [1] "Upper whisker:"
```

```
upper
```

```
## [1] 3
```

```
tib <- as_tibble(totacts_wCasualties_DR)

print("Number of extreme accidents with more than 3 casualties")
```

```
## [1] "Number of extreme accidents with more than 3 casualties"
```

```
count(tib %>% filter(Casualty > upper))
```

```
##     ï..IYR IMO RAILROAD    INCDTNO IYR2 IMO2  RR2   INCDTNO2 IYR3 IMO3  RR3
## 1        1   3      ATK     067106   NA   NA                    1    3 BNSF
## 2        1   2      ATK     066485    1    2  CSX   020130006    1    2  CSX
## 3        1  12      ATK     071425   NA   NA                    1   12 BNSF
## 4        1   9     PATH      I0601   NA   NA                    1    9 PATH
## 5        1   9      ATK     070187    1    9   UP   0901UT008    1    9   UP
```

```
## 6       1   9     ATK     070131    1    9   UP  0901LK014    1    9   UP
## 7       1   7      UP  0701SA036   NA   NA                     1    7   UP
## 8       1   7     ATK     069011   NA   NA                     1    7  CSX
## 9       1   7     ATK     069359   NA   NA                     1    7   UP
## 10      1   6    NJTR  200107374   NA   NA                     1    6 NJTR
## 11      1   5     ATK     067875   NA   NA                     1    5 BNSF
## 12      1   3    TKEN       0101   NA   NA                     1    3 TKEN
## 13      2  12    WVRR    2002101   NA   NA                     2   12 WVRR
## 14      2   1     SOO     170488   NA   NA                     2    1  SOO
## 15      2  11    BNSF  SC1102200   NA   NA                     2   11 BNSF
## 16      2   8     ATK     074865   NA   NA                     2    8   UP
## 17      2   7    BNSF  TC0702201   NA   NA                     2    7 BNSF
## 18      2   7     ATK     074513   NA   NA                     2    7  CSX
## 19      2   7     ATK     074547   NA   NA                     2    7  CSX
## 20      2   6      LI EQ20020604   NA   NA                     2    6   LI
## 21      2   6    MACZ     073903    2    6  ATK     073902    2    6  ATK
## 22      2   6    BNSO  CH0602105   NA   NA                     2    6 BNSO
## 23      2   6     ATK     073902    2    6 MACZ     073903    2    6  ATK
## 24      2   5      UP  0502HO025   NA   NA                     2    5   UP
## 25      2   5     ATK     073383   NA   NA                     2    5  CSX
## 26      2   4    SCAX    0423021    2    4 BNSF  SC0402109    2    4 BNSF
## 27      2   4     ATK     073020   NA   NA                     2    4  CSX
## 28      2   3     ATK     072649   NA   NA                     2    3   NS
## 29      2   1     CSX  010228002   NA   NA                     2    1  CSX
## 30      3   7     ATK     079015   NA   NA                     3    7   UP
## 31      3   5     ATK     077978   NA   NA                     3    5  CSX
## 32      3   7     ATK     079078    3    7   UP  0703RS024    3    7   UP
## 33      3  11     ATK     090500   NA   NA                     3   11   UP
## 34      3   6      NS     013086   NA   NA                     3    6   NS
## 35      3   1    PATH      I0303   NA   NA                     3    1 PATH
## 36      3   7    NJTR  200307487   NA   NA                     3    7  ATK
## 37      3   1    SCAX     010603   NA   NA                     3    1 SCAX
## 38      3   8    MNCW 2003081501   NA   NA                     3    8 MNCW
## 39      3  10    NIRC      R0314   NA   NA                     3   10 NIRC
## 40      3   8     ATK     079655   NA   NA                     3    8   NS
## 41      3   9    BNSF  TC0903201   NA   NA                     3    9 BNSF
## 42      4   1    SEPA 012604R001   NA   NA                     4    1 SEPA
## 43      4   2     ATK     091385   NA   NA                     4    2 BNSF
## 44      4   3    UPME  0304CM011   NA   NA                     4    3 UPME
## 45      4   4     ATK     091994   NA   NA                     4    4   IC
## 46      4   4      LI EQ20040402    4    4  ATK     092111    4    4  ATK
## 47      4   6     ATK     092857   NA   NA                     4    6  ATK
## 48      4   6    BNSF  SF0604205   NA   NA                     4    6 BNSF
## 49      4   6      NS     017256   NA   NA                     4    6   NS
## 50      4   6      UP  0604SA011    4    6 BNSF  GC0604127    4    6   UP
## 51      4   8     ATK     093644   NA   NA                     4    8  ATK
## 52      4   8    BNSF  TX0804203   NA   NA                     4    8 BNSF
## 53      4   8     CSX  000006096   NA   NA                     4    8  CSX
## 54      4   8    NJTR  200409526   NA   NA                     4    8 NJTR
## 55      4   9    MNCW 2004092014   NA   NA                     4    9 MNCW
## 56      4  10     ATK     094259   NA   NA                     4   10   NS
## 57      4  12     ATK     094991   NA   NA                     4   12  CSX
## 58      5   7      UP  0705SA023   NA   NA                     5    7   UP
## 59      5   8      UP  0805TC030   NA   NA                     5    8   UP
```

```
## 60      5   4     ATK     096040   NA   NA                  5    4 BNSF
## 61      5   2     ATK     095529   NA   NA                  5    2   IC
## 62      5   1     ATK     095158   NA   NA                  5    1   UP
## 63      5   8     ATK     097639   NA   NA                  5    8   NS
## 64      5   8     ATK     097694   NA   NA                  5    8   UP
## 65      5   9     ATK     098356   NA   NA                  5    9   UP
## 66      5  12     ATK     099230   NA   NA                  5   12   UP
## 67      5   8    BNSF  SF0805200   NA   NA                  5    8 BNSF
## 68      5   9     CSX  000015294   NA   NA                  5    9  CSX
## 69      5  11    NIRC     NC016Y   NA   NA                  5   11 NIRC
## 70      5   9    NIRC      R0522   NA   NA                  5    9 NIRC
## 71      5   4    NIRC     ME062Y   NA   NA                  5    4 NIRC
## 72      5   1      NS     019414   NA   NA                  5    1 AMCJ
## 73      5   1    SCAX     012605    5    1   UP  0105LA041    5    1 SCAX
## 74      5   4    SNJX   04190501   NA   NA                  5    4 SNJX
## 75      5  10      UP  1005LK032   NA   NA                  5   10   UP
## 76      5   5    HVRX     200501   NA   NA                  5    5 HVRX
## 77      6   5     ATK     100635   NA   NA                  6    5   UP
## 78      6  11     ATK     102674   NA   NA                  6   11  CSX
## 79      6   1     ATK     099682   NA   NA                  6    1 BNSF
## 80      6   7     ATK     101597   NA   NA                  6    7   UP
## 81      6   5     ATK     100802   NA   NA                  6    5  CSX
## 82      6  11      IC     539380   NA   NA                  6   11   IC
## 83      6   6    UPME  0606CM007   NA   NA                  6    6 UPME
## 84      6   1    VREX     099442   NA   NA                  6    1  CSX
## 85      6  11      UP  1106RS011    6   11 HTTZ   INDUSTRY    6   11   UP
## 86      6   3      UP  0306WH005   NA   NA                  6    3   UP
## 87      6  10    MBTA       0485   NA   NA                  6   10 MBTA
## 88      6   7    SEPA 070106R004   NA   NA                  6    7 SEPA
## 89      6   6      UP  0606DV003   NA   NA                  6    6   UP
## 90      6   7    SLRG     172006   NA   NA                  6    7 SLRG
## 91      6   6      NS     025365   NA   NA                  6    6   NS
## 92      6  10     CSX  000026422   NA   NA                  6   10  CSX
## 93      6   3    BNSF  PR0306202   NA   NA                  6    3   UP
## 94      6  12    BNSF  KS1206123   NA   NA                  6   12 BNSF
## 95      6   4     ATK     100577   NA   NA                  6    4 BNSF
## 96      6   6     ATK     101028   NA   NA                  6    6 BNSF
## 97      6   9    BNSF  TX0906110   NA   NA                  6    9 BNSF
## 98      6  12      UP  1206SL002   NA   NA                  6   12   UP
## 99      6   6    NIRC     HC005Z   NA   NA                  6    6   IC
## 100     6   7     ATK     101324   NA   NA                  6    7 BNSF
## 101     6   5     ATK     100847   NA   NA                  6    5   NS
## 102     7  10     DQE     DE0740   NA   NA                  7   10  DQE
## 103     7   6    MNCW 2007062115   NA   NA                  7    6 MNCW
## 104     7  10    SEPA 100407R003   NA   NA                  7   10 SEPA
## 105     7  12    SEPA 121507R001   NA   NA                  7   12 SEPA
## 106     7   1    MBTA       0520   NA   NA                  7    1 MBTA
## 107     7   5    MNBR  MBR3407DR   NA   NA                  7    5 MNBR
## 108     7   2      UP  0207LK039   NA   NA                  7    2   UP
## 109     7  10      UP  1007LK029   NA   NA                  7   10   UP
## 110     7   7      UP  0707NP018   NA   NA                  7    7   UP
## 111     7   5     ATK     104264   NA   NA                  7    5   UP
## 112     7   5     ATK     104320   NA   NA                  7    5 BNSF
## 113     7   8     ATK     105349   NA   NA                  7    8   UP
```

```
##  114      7  11      ATK     106342    7   11   NS      031044    7   11   NS
##  115      7   3      KCS   07030801   NA   NA                     7    3  KCS
##  116      7   7      ATK     104974   NA   NA                     7    7  CSX
##  117      7   7      ATK     104975   NA   NA                     7    7  CSX
##  118      7   7      ATK     105043   NA   NA                     7    7 BNSF
##  119      7  10      ATK     105801   NA   NA                     7   10  CSX
##  120      7   3     NIRC    SWA0009    7    3   IC      548474    7    3  ATK
##  121      8   3      ATK     107219   NA   NA                     8    3  ATK
##  122      8  12      ATK     110456   NA   NA                     8   12   UP
##  123      8   5      ATK     108137   NA   NA                     8    5 BNSF
##  124      8   5      ATK     108129   NA   NA                     8    5   IC
##  125      8   1      ATK     106838   NA   NA                     8    1   UP
##  126      8   5       UP  0508SA008   NA   NA                     8    5   UP
##  127      8   9     SCAX     091208    8    9   UP  0908LA014    8    9 SCAX
##  128      8   7      ATK     108620   NA   NA                     8    7   UP
##  129      8   3     MBTA       0670    8    3  CSX ZZZZZZZZZZ    8    3  ATK
##  130      8   6     ACEX    A062708   NA   NA                     8    6 ACEX
##  131      8   4      CSX  000046027   NA   NA                     8    4  CSX
##  132      8   7      KCS   08070601   NA   NA                     8    7  KCS
##  133      9   1      ATK     110856   NA   NA                     9    1  ATK
##  134      9   1      ATK     110800   NA   NA                     9    1   UP
##  135      9   3      ATK     111407   NA   NA                     9    3   NS
##  136      9   2       NS     035614   NA   NA                     9    2   NS
##  137      9   1     SEPA 0127096168   NA   NA                     9    1 SEPA
##  138      9  12     NJTR  200912771   NA   NA                     9   12 NJTR
##  139      9   3      ATK     111338   NA   NA                     9    3 BNSF
##  140      9   2      ATK     110974   NA   NA                     9    2   NS
##  141      9  12     SNJX  122120090   NA   NA                     9   12 SNJX
##  142      9  11     SEPA 1104097391   NA   NA                     9   11  ATK
##  143      9   4      ATK     111500   NA   NA                     9    4   IC
##  144      9   6       CC     636850   NA   NA                     9    6   CC
##  145      9  11       UP  1109FW002   NA   NA                     9   11   UP
##  146      9   5      ATK     112101   NA   NA                     9    5 BNSF
##  147      9   5      ATK     111797   NA   NA                     9    5   UP
##  148      9   7      ATK     112579   NA   NA                     9    7 BNSF
##  149      9   7      ATK     112604   NA   NA                     9    7   NS
##  150      9  10      ATK     113600   NA   NA                     9   10  CSX
##  151      9  10      ATK     113671   NA   NA                     9   10  CSX
##  152     10   1      ATK     114338   NA   NA                    10    1   UP
##  153     10   6       UP  0610SA013   NA   NA                    10    6   UP
##  154     10  11     MACZ     117756   10   11  ATK      117755   10   11  ATK
##  155     10   3      ATK     114961   NA   NA                    10    3 CRSH
##  156     10   5      ATK     115742   NA   NA                    10    5   NS
##  157     10   8      ATK     116714   NA   NA                    10    8 BNSF
##  158     10   6      ATK     116047   NA   NA                    10    6  CSX
##  159     10   9      ATK     117083   NA   NA                    10    9 BNSF
##  160     10   5      ATK     115758   10    5  CSX  000075912   10    5  CSX
##  161     10   5      ATK     115898   NA   NA                    10    5   UP
##  162     10   3     SCAX     032010   NA   NA                    10    3 SCAX
##  163     11   6     BNSO  CH0611103   11    6  ATK      119974   11    6  ATK
##  164     11   7      ATK     120392   NA   NA                    11    7  GRS
##  165     11   5     PATH    I050111   NA   NA                    11    5 PATH
##  166     11   9      ATK     121160   NA   NA                    11    9 BNSF
##  167     11   9      ATK     121308   NA   NA                    11    9 BNSF
```

```
## 168     11   4      ATK     119576   NA   NA                    11    4  ATK
## 169     11   4      ATK     119503   NA   NA                    11    4   NS
## 170     11   7     NIRC     RIE069   NA   NA                    11    7 NIRC
## 171     11   8      ATK     120905   NA   NA                    11    8 BNSF
## 172     11   7       UP  0711LV018   NA   NA                    11    7   UP
## 173     11  11     SFRV     110611   NA   NA                    11   11  CSX
## 174     11   5     UPME  0511CM011   NA   NA                    11    5 UPME
## 175     11   6      ATK     120239   NA   NA                    11    6   UP
## 176     11   5       LI GR20110501   NA   NA                    11    5   LI
## 177     12   1      ATK     122600   NA   NA                    12    1 BNSF
## 178     12   2      ATK     122696   NA   NA                    12    2   NS
## 179     12   1      ATK     122658   NA   NA                    12    1   IC
## 180     12  10     SCAX     100612   NA   NA                    12   10 SCAX
## 181     12  11     CRSH     102363   NA   NA                    12   11 CRSH
## 182     12   1     SCRT   01282012   NA   NA                    12    1 SCRT
## 183     12  12      ATK     126404   NA   NA                    12   12 SDNX
## 184     12  10      ATK     125842   NA   NA                    12   10  ATK
## 185     12  11      ATK     126266   NA   NA                    12   11 CFRC
## 186     12   6      ATK     124408   NA   NA                    12    6  ATK
## 187     12   7      ATK     124837   NA   NA                    12    7   IC
## 188     12  11       UP  1112FW016   NA   NA                    12   11   UP
## 189     12   4     CMTY C043012ATX   NA   NA                    12    4 CMTY
## 190     12   3     SEPA      12494   NA   NA                    12    3 SEPA
## 191     12   3      ATK     123110   NA   NA                    12    3 BNSF
## 192     12   6      ATK     124468   NA   NA                    12    6   UP
## 193     12  12       IC     766275   NA   NA                    12   12 ZTAM
## 194     12  10      ATK     125592   NA   NA                    12   10 BNSF
## 195     12   8      ATK     125076   NA   NA                    12    8   NS
## 196     12   8     SDNX   08312012   NA   NA                    12    8 SDNX
## 197     13   8     BNSF  TX0813203   NA   NA                    13    8 BNSF
## 198     13  10      WVC     201301   NA   NA                    13   10  WVC
## 199     13   5     MNCW 2013051720   NA   NA                    13    5 MNCW
## 200     13   2       UP  0213LV008   NA   NA                    13    2   UP
## 201     13   1     NJTR  201301060   NA   NA                    13    1 NJTR
## 202     13  11     SNJX   11012013   NA   NA                    13   11 SNJX
## 203     13   6     NJTR  201306321   NA   NA                    13    6 NJTR
## 204     13   4     SCAX     040613   NA   NA                    13    4 SCAX
## 205     13   3       UP  0313LK026   NA   NA                    13    3   UP
## 206     13  12      ATK     130881   NA   NA                    13   12 BNSF
## 207     13   8      CSX  000119210   NA   NA                    13    8  CSX
## 208     13   4     BNSF  NE0413200   NA   NA                    13    4 BNSF
## 209     13   9      ATK     129808   NA   NA                    13    9   IC
## 210     13  12     MNCW 2013120106   NA   NA                    13   12 MNCW
## 211     13   5       UP  0513SL011   13    5 BNSF  SF0513118    13    5   UP
## 212     13   5      CSX  000116641   NA   NA                    13    5  CSX
## 213     13  11      ATK     130746   NA   NA                    13   11   NS
## 214     13   4      ATK     127782   NA   NA                    13    4   UP
## 215     14   7     PARN     140701   NA   NA                    14    7 PARN
## 216     14   6      ATK     133293   NA   NA                    14    6  ATK
## 217     14   4     SFRV     042414   NA   NA                    14    4  CSX
## 218     14   3      ATK     132127   NA   NA                    14    3 BNSF
## 219     14   7      ATK     133598   NA   NA                    14    7   IC
## 220     14  10      ATK     134971   NA   NA                    14   10  CSX
## 221     14   6      ATK     133179   NA   NA                    14    6   UP
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## 222     14  10      CSX  000137001   NA   NA                  14   10  CSX
## 223     14   1     NIRC     MRH001   NA   NA                  14    1 NIRC
## 224     14   6      ATK     133044   NA   NA                  14    6 BNSF
## 225     14   6      ATK     133275   NA   NA                  14    6  ATK
## 226     15   7      ATK     138095   NA   NA                  15    7   UP
## 227     15   9      ATK     139152   NA   NA                  15    9  CSX
## 228     15  10      ATK     139478   NA   NA                  15   10 NECR
## 229     15  11      ATK     139911   NA   NA                  15   11   NS
## 230     15   5     BNSF  TX0515100   NA   NA                  15    5 BNSF
## 231     15   5      ATK     137404   15    5 CRSH     115640   15    5  ATK
## 232     15   2     MNCW 2015020343   NA   NA                  15    2 MNCW
## 233     15   1     SNJX    1162015   NA   NA                  15    1 SNJX
## 234     15   3       IC     842345   NA   NA                  15    3   IC
## 235     15   5      ATK     137360   NA   NA                  15    5   IC
## 236     15   9       UP  0915LA001   NA   NA                  15    9   UP
## 237     15   2     SCAX     022415   NA   NA                  15    2   UP
## 238     15   7      CSX  000148646   NA   NA                  15    7  CSX
## 239     15   6      ATK     137689   NA   NA                  15    6   UP
## 240     15  11      ATK     139958   NA   NA                  15   11  CSX
## 241     15   3      ATK     136580   NA   NA                  15    3  CSX
## 242     15  11      ATK     140148   NA   NA                  15   11 BNSF
## 243     15  10      ATK     139565   NA   NA                  15   10   IC
## 244     15  10      CSX  000153446   NA   NA                  15   10  CSX
## 245     15   6      ATK     137744   NA   NA                  15    6 BNSF
## 246     15  10     CFRC      15281   NA   NA                  15   10 CFRC
## 247     16  11      ATK     144953   NA   NA                  16   11   UP
## 248     16   5      ATK     142463   NA   NA                  16    5   IC
## 249     16   4       NS     120060   NA   NA                  16    4   NS
## 250     16   3      ATK     141515   NA   NA                  16    3 BNSF
## 251     16   7      ATK     143401   NA   NA                  16    7   IC
## 252     16  10      ATK     144521   NA   NA                  16   10   IC
## 253     16   5     SNJX   05052016   NA   NA                  16    5 SNJX
## 254     16   4      ATK     141786   NA   NA                  16    4  ATK
## 255     16   5      ATK     142375   NA   NA                  16    5 BNSF
## 256     16   6      ATK     143003   NA   NA                  16    6 BNSF
## 257     16   5      ATK     142222   NA   NA                  16    5  CSX
## 258     16   1     SFRV     010416   NA   NA                  16    1 SFRV
## 259     16   9      ATK     144149   NA   NA                  16    9  TRE
## 260     16   8      ATK     144059   NA   NA                  16    8   IC
## 261     16   3      ATK     141417   NA   NA                  16    3   UP
## 262     16   3     ACEX  A03072016   NA   NA                  16    3   UP
## 263     16   9     NJTR  201609513   NA   NA                  16    9 NJTR
## 264     16   2      ATK     141217   NA   NA                  16    2   UP
## 265     17  12      ATK     150985   NA   NA                  17   12  SCR
## 266     17   7      ATK     148201   NA   NA                  17    7 BNSF
## 267     17   8      ATK     149067   NA   NA                  17    8  CSX
## 268     17   8      CSX  000170611   NA   NA                  17    8  CSX
## 269     17   5     MNCW 2017051832   NA   NA                  17    5 MNCW
## 270     17   5      ATK     147363   NA   NA                  17    5 BNSF
## 271     17  12      ATK     151093   NA   NA                  17   12  CSX
## 272     17   1      ATK     145805   NA   NA                  17    1 CFRC
## 273     17   3      ATK     146864   NA   NA                  17    3  ATK
## 274     17   8      GSM   08222017   NA   NA                  17    8  GSM
## 275     17  11       UP  1117HO005   NA   NA                  17   11   UP
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## 276     17   4     NJTR  201704122   NA   NA                  17    4  ATK
## 277     17   3     NJTR  201703105   17    3  ATK     146813   17    3  ATK
## 278     17   1       LI EQ20170103   NA   NA                  17    1   LI
## 279     17   2     RTDC      37517   NA   NA                  17    2 RTDC
## 280     17   3      CSX  000167264   NA   NA                  17    3  CSX
## 281     17   7      ATK     148383   NA   NA                  17    7  CSX
## 282     18   1      ATK     151771   NA   NA                  18    1   BB
## 283     18  10      ATK     155706   NA   NA                  18   10   IC
## 284     18   9      ATK     155431   NA   NA                  18    9   UP
## 285     18   8      TRE      18007   NA   NA                  18    8  TRE
## 286     18   8      ATK     154895   NA   NA                  18    8   UP
## 287     18   2      ATK     151818   NA   NA                  18    2  CSX
## 288     18   3      ATK     152432   NA   NA                  18    3  GTW
## 289     18   1      ATK     151285   NA   NA                  18    1  CSX
## 290     18   7      CSX  000177906   NA   NA                  18    7  CSX
## 291     18  11      ATK     156405   NA   NA                  18   11 BNSF
## 292     18   6      ATK     153605   NA   NA                  18    6  ATK
## 293     18   8     NJTR  201808397   NA   NA                  18    8  ATK
## 294     18   7     NJTR  201807361   NA   NA                  18    7 NJTR
## 295     18  11      ATK     156193   NA   NA                  18   11  CSX
## 296     19   4      ATK     158360   NA   NA                  19    4   UP
## 297     19   8      ATK     160879   NA   NA                  19    8   UP
## 298     19   8      ATK     160663   NA   NA                  19    8   IC
## 299     19   1      ATK     157343   NA   NA                  19    1  ATK
## 300     19  10      ATK     161729   NA   NA                  19   10   UP
## 301     19  11     SMRT     191113   NA   NA                  19   11 SMRT
## 302     19   3     MNCW      69480   NA   NA                  19    3 MNCW
## 303     19   1      ATK     157268   NA   NA                  19    1   NS
## 304     19   5     RTDC     050619   NA   NA                  19    5 RTDC
## 305     19   5      ATK     159188   NA   NA                  19    5   IC
## 306     19   1       NS     132320   NA   NA                  19    1   NS
## 307     19   2       LI      69346   NA   NA                  19    2   LI
## 308     19   7      ATK     160293   NA   NA                  19    7   IC
##       INCDTNO3 DUMMY1    GXID YEAR MONTH DAY TIMEHR TIMEMIN AMPM         TYPE
## 1    NE0301109     NA            1     3  17     11      40   PM   Derailment
## 2    020130006     NA            1     2   5     11      40   AM     Rearend
## 3    NC1201200     NA 028394Y    1    12  12      3      59   PM    Hwy-Rail
## 4        I0601     NA            1     9  11      8      48   AM   Explosive
## 5    0901UT008     NA            1     9  13      5       0   AM        Side
## 6    0901LK014     NA            1     9  11      9      50   AM        Side
## 7    0701SA036     NA 746505U    1     7  25      5      25   PM    Hwy-Rail
## 8    070106007     NA 637357C    1     7   9      8      10   AM    Hwy-Rail
## 9    0701SL016     NA            1     7  29      1      57   AM   Derailment
## 10   200107374     NA            1     6  20      4      23   PM   Derailment
## 11   NC0501200     NA 028647E    1     5   4      8      55   PM    Hwy-Rail
## 12        0101     NA 298698H    1     3  26      3      35   PM    Hwy-Rail
## 13     2002101     NA            2    12   7      6      55   PM   Derailment
## 14      170488     NA            2     1  18      1      39   AM   Derailment
## 15   SC1102200     NA 028209C    2    11   5      6       0   PM    Hwy-Rail
## 16   0802RS020     NA            2     8  21     10      12   PM  Obstruction
## 17   TC0702201     NA 075717T    2     7   3      2      50   PM    Hwy-Rail
## 18   070222017     NA            2     7  29      1      55   PM   Derailment
## 19   070206044     NA 623001D    2     7  30      3      57   PM    Hwy-Rail
## 20  EQ20020604     NA            2     6  22     12       0   PM     Rearend
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## 21      073902     NA           2     6  17      5      41   PM         Side
## 22   CH0602105     NA           2     6  12      3      21   PM       HeadOn
## 23      073902     NA           2     6  17      5      41   PM         Side
## 24   0502HO025     NA 426599P   2     5  29      4      45   PM     Hwy-Rail
## 25   050205009     NA 632445V   2     5  14      9       0   AM     Hwy-Rail
## 26   SC0402109     NA           2     4  23      8      16   AM       HeadOn
## 27   040206013     NA           2     4  18      5       5   PM   Derailment
## 28      008818     NA 736049U   2     3  19      2      20   PM     Hwy-Rail
## 29   010228002     NA           2     1   7     12      30   PM   Derailment
## 30   0703RS022     NA 751703A   3     7  15      7       0   AM     Hwy-Rail
## 31   050306002     NA 637344B   3     5   6      7      20   AM     Hwy-Rail
## 32   0703RS024     NA           3     7  18      2      20   AM      Rearend
## 33   1103SL015     NA 446036S   3    11  26      9      10   AM     Hwy-Rail
## 34      013086     NA 719983X   3     6  17      4      45   PM     Hwy-Rail
## 35       I0303     NA           3     1  17      6      36   PM  Obstruction
## 36      079010     NA           3     7  14      7      55   AM   Derailment
## 37      010603     NA 746784S   3     1   6      9      20   AM     Hwy-Rail
## 38  2003081501     NA           3     8  15      3      35   AM      Rearend
## 39       R0314     NA           3    10  12      4      38   PM   Derailment
## 40      013809     NA 714610G   3     8  28      9      37   AM     Hwy-Rail
## 41   TC0903201     NA 071246S   3     9  16      9      37   AM     Hwy-Rail
## 42  012604R001     NA           4     1  26     11      50   PM        Other
## 43   KS0204105     NA           4     2   9      7      30   AM   Derailment
## 44   0304CM011     NA           4     3  26      9       2   AM        Other
## 45      215995     NA           4     4   6      6      33   PM   Derailment
## 46      092111     NA           4     4  19      7       4   AM      Rearend
## 47      092857     NA           4     6  16      3      45   AM  Obstruction
## 48   SF0604205     NA 667296V   4     6  18      2      50   PM     Hwy-Rail
## 49      017256     NA 725945C   4     6  25     10       7   AM     Hwy-Rail
## 50   0604SA011     NA           4     6  28      5       3   AM         Side
## 51      093644     NA 500726P   4     8  21      8       0   AM     Hwy-Rail
## 52   TX0804203     NA 274665C   4     8  16     12      20   PM     Hwy-Rail
## 53   000006096     NA 636852M   4     8  30      3      45   PM     Hwy-Rail
## 54   200409526     NA           4     8  30      2      15   AM        Other
## 55  2004092014     NA 529898H   4     9  20      8      37   AM     Hwy-Rail
## 56      018877     NA           4    10  19      2       4   AM         Fire
## 57   000009482     NA 629688U   4    12  25     11       8   PM     Hwy-Rail
## 58   0705SA023     NA 427944Y   5     7  15      7      41   AM     Hwy-Rail
## 59   0805TC030     NA 179116Y   5     8  30      8      15   AM     Hwy-Rail
## 60   NW0405101     NA           5     4   3      9      35   AM   Derailment
## 61      332647     NA 300152A   5     2  13      3      23   PM     Hwy-Rail
## 62   0105DV019     NA           5     1  11     10       0   PM  Obstruction
## 63      021799     NA 735480V   5     8   2     12      30   PM     Hwy-Rail
## 64   0805LA010     NA 745884T   5     8   5      8      35   PM     Hwy-Rail
## 65   0905SL024     NA           5     9  28     11       8   PM  Obstruction
## 66   1205DV014     NA 255176R   5    12  14     11       8   AM     Hwy-Rail
## 67   SF0805200     NA 664089R   5     8   9     12      45   PM     Hwy-Rail
## 68   000015294     NA           5     9  22      3      17   AM       HeadOn
## 69      NC016Y     NA 372131E   5    11  23      4      43   PM     Hwy-Rail
## 70       R0522     NA           5     9  17      8      35   AM   Derailment
## 71      ME062Y     NA 289542K   5     4  18      6      26   PM     Hwy-Rail
## 72    INDUSTRY     NA           5     1   6      2      39   AM SeeNarrative
## 73      012605     NA           5     1  26      6       5   AM  Obstruction
## 74    04190501     NA 501723X   5     4  19      7       4   PM     Hwy-Rail
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## 75   1005LK032     NA           5    10  15      4      56   AM      Rearend
## 76      200501     NA           5     5  10     11      30   AM        Other
## 77   0506SA008     NA 743294P   6     5   5      9      52   AM     Hwy-Rail
## 78   000026819     NA 643880H   6    11   8      1      43   PM     Hwy-Rail
## 79   NW0106119     NA           6     1  28      1       5   AM   Derailment
## 80   0706LV044     NA           6     7  30      3      20   PM   Derailment
## 81   000023397     NA 628100T   6     5  18     10      54   AM     Hwy-Rail
## 82      539380     NA 296124L   6    11  20      7      45   AM     Hwy-Rail
## 83   0606CM007     NA 173957U   6     6  28      3      54   PM     Hwy-Rail
## 84   000019277     NA           6     1   5      6      40   AM   Derailment
## 85   1106RS011     NA           6    11   9     11       0   AM   Derailment
## 86   0306WH005     NA 596844H   6     3   7      9      47   AM     Hwy-Rail
## 87        0485     NA 536861K   6    10  23      7      48   AM     Hwy-Rail
## 88  070106R004     NA           6     7   1      2      54   PM       HeadOn
## 89   0606DV003     NA 818462E   6     6   3      9      59   AM     Hwy-Rail
## 90      172006     NA 253485W   6     7  26      4      20   PM     Hwy-Rail
## 91      025365     NA 727807V   6     6   1     11      40   AM     Hwy-Rail
## 92   000026422     NA           6    10  24      5      20   AM       HeadOn
## 93   0306DV023     NA 253565P   6     3  25     12      24   PM     Hwy-Rail
## 94   KS1206123     NA           6    12  30      6      35   PM  Obstruction
## 95   GC0406202     NA 767907J   6     4  28      1      43   PM     Hwy-Rail
## 96   GC0606202     NA 758008B   6     6  14     12      55   PM     Hwy-Rail
## 97   TX0906110     NA           6     9  19      6      15   PM   Derailment
## 98   1206SL002     NA           6    12   4      2      24   AM   Derailment
## 99      525661     NA 309452U   6     6  21      6      52   PM     Hwy-Rail
## 100  NW0706200     NA 092479W   6     7   3      4      45   PM     Hwy-Rail
## 101     025324     NA 545296H   6     5  30      1       9   PM     Hwy-Rail
## 102     DE0740     NA 845171L   7    10  18     11      26   AM     Hwy-Rail
## 103 2007062115     NA           7     6  21      1      46   PM   Derailment
## 104 100407R003     NA 593130H   7    10   4      2      31   PM     Hwy-Rail
## 105 121507R001     NA 593130H   7    12  15      7      52   AM     Hwy-Rail
## 106       0520     NA           7     1   9      1      40   PM       HeadOn
## 107  MBR3407DR     NA           7     5   2      8      40   AM   Derailment
## 108  0207LK039     NA           7     2  24      3      30   PM   Derailment
## 109  1007LK029     NA 787838H   7    10  21     12      58   PM     Hwy-Rail
## 110  0707NP018     NA 815911G   7     7  28      2      40   AM     Hwy-Rail
## 111  0507LA004     NA           7     5   2      4       9   PM   Derailment
## 112  CA0507200     NA 028755B   7     5   8      2       5   PM     Hwy-Rail
## 113  0807RS022     NA 751494U   7     8  17      3       2   PM     Hwy-Rail
## 114     031044     NA           7    11  30     11      23   AM      Rearend
## 115   07030801     NA           7     3   8      8      30   AM   Derailment
## 116  000034208     NA 624298P   7     7  16      3      18   PM     Hwy-Rail
## 117  000034065     NA 624310U   7     7  17      3      15   PM     Hwy-Rail
## 118  CA0707201     NA 028386G   7     7  19      1      55   PM     Hwy-Rail
## 119  000036893     NA 632473Y   7    10   3      8      10   PM     Hwy-Rail
## 120     103734     NA           7     3   7      9      56   PM       HeadOn
## 121     107219     NA           8     3   2      7      30   AM        Other
## 122  1208SL005     NA 294413F   8    12   8     11      15   AM     Hwy-Rail
## 123  CA0508202     NA 028400A   8     5  28      4      58   PM     Hwy-Rail
## 124     596181     NA 299824D   8     5  27      1       0   PM     Hwy-Rail
## 125  0108HO039     NA 762897N   8     1  25     11      40   PM     Hwy-Rail
## 126  0508SA008     NA 436053F   8     5  13      1      20   PM     Hwy-Rail
## 127     091208     NA           8     9  12      4      23   PM       HeadOn
## 128  0708RS009     NA 751289N   8     7   6      4      52   PM     Hwy-Rail
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##  129     108181     NA           8     3  25      5      12   PM        Other
##  130    A062708     NA           8     6  27      5      40   PM   Derailment
##  131  000046027     NA 348484F   8     4  25      3      20   PM     Hwy-Rail
##  132   08070601     NA 305037K   8     7   6      3       0   PM     Hwy-Rail
##  133     110856     NA           9     1  13      3      18   PM   Derailment
##  134  0109SL005     NA 294381C   9     1  15      9       5   AM     Hwy-Rail
##  135     035917     NA 715348T   9     3  20      5      37   PM     Hwy-Rail
##  136     035614     NA 718345H   9     2  11     11       5   AM     Hwy-Rail
##  137 0127096168     NA           9     1  27      4      50   AM      Rearend
##  138  200912771     NA 501429A   9    12  19      7      25   PM     Hwy-Rail
##  139  TX0309201     NA 020596U   9     3  13     11      20   AM     Hwy-Rail
##  140     035562     NA 715325L   9     2   4     10       0   AM     Hwy-Rail
##  141  122120090     NA           9    12  21      9      21   AM   Derailment
##  142     114021     NA           9    11   4      6      45   AM         Fire
##  143     627869     NA           9     4   2      2      18   PM  Obstruction
##  144     636850     NA           9     6  19      8      36   PM   Derailment
##  145  1109FW002     NA 430252M   9    11   5      1      46   PM     Hwy-Rail
##  146  GC0509200     NA 767693U   9     5  31     11      34   AM     Hwy-Rail
##  147  0509RS002     NA           9     5   3     10      52   PM  Obstruction
##  148  CH0709202     NA 079613A   9     7  13      3       4   PM     Hwy-Rail
##  149     036722     NA 510034C   9     7  14     10      24   PM     Hwy-Rail
##  150  000069548     NA 628088N   9    10  15      4      42   PM     Hwy-Rail
##  151  000069860     NA 629879E   9    10  23      9      30   PM     Hwy-Rail
##  152  0110LK004     NA          10     1   6      3       2   AM   Derailment
##  153  0610SA013     NA 447854E  10     6  18     10      54   AM     Hwy-Rail
##  154     117755     NA          10    11   5      8      53   AM       HeadOn
##  155     054649     NA 512363H  10     3   1     11      49   AM     Hwy-Rail
##  156     039183     NA 735472D  10     5  13      7      46   AM     Hwy-Rail
##  157  CA0810200     NA 028392K  10     8   6      3      50   PM     Hwy-Rail
##  158  000076896     NA 621001W  10     6  14      3      44   PM     Hwy-Rail
##  159  GC0910200     NA 767889N  10     9  10     10       5   AM     Hwy-Rail
##  160  000075912     NA          10     5  16     12       4   PM       Raking
##  161  0510SL014     NA          10     5  30      5      48   PM   Derailment
##  162     032010     NA 746903Y  10     3  20      9      25   AM     Hwy-Rail
##  163     119974     NA          11     6   3      8      20   AM       Raking
##  164        239     NA 053153A  11     7  11     11       4   AM     Hwy-Rail
##  165    I050111     NA          11     5   8      8      32   AM  Obstruction
##  166  CA0911203     NA 028732U  11     9  19      1      36   PM     Hwy-Rail
##  167  CA0911204     NA 029644M  11     9  30      7      35   PM     Hwy-Rail
##  168     119576     NA          11     4  26      5       2   PM         Fire
##  169     041932     NA 725160T  11     4  20      8       2   AM     Hwy-Rail
##  170     RIE069     NA 608945G  11     7  21      3      58   PM     Hwy-Rail
##  171  CO0811105     NA          11     8  26      7      51   AM  Obstruction
##  172  0711LV018     NA 794280W  11     7  27      2       0   PM     Hwy-Rail
##  173  000097400     NA          11    11   6      6      52   PM  Obstruction
##  174  0511CM011     NA 176909P  11     5  13      8      40   AM     Hwy-Rail
##  175  0611RS014     NA 740765S  11     6  24     11      19   AM     Hwy-Rail
##  176 GR20110501     NA 338165K  11     5  17      6      43   AM     Hwy-Rail
##  177  NW0112201     NA 085633A  12     1  24      5      55   PM     Hwy-Rail
##  178     097888     NA 545271M  12     2   1      8       9   AM     Hwy-Rail
##  179     734103     NA 300822P  12     1  28      9      57   AM     Hwy-Rail
##  180     100612     NA 746021F  12    10   6      9      40   PM     Hwy-Rail
##  181     102363     NA          12    11  30      7       5   AM   Derailment
##  182   01282012     NA 833773T  12     1  28      4       9   PM     Hwy-Rail
```

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## 183   12082012     NA 026849V   12    12   8      2      34   PM     Hwy-Rail
## 184     125842     NA           12    10  21     10      14   AM   Derailment
## 185      12333     NA 622318S   12    11  29     11      15   AM     Hwy-Rail
## 186     124408     NA           12     6  27      4      30   PM         Fire
## 187     753504     NA 299804S   12     7  30     11      41   AM     Hwy-Rail
## 188  1112FW016     NA 796331L   12    11  15      4      35   PM     Hwy-Rail
## 189 C043012ATX     NA 765655D   12     4  30      7      40   AM     Hwy-Rail
## 190      12494     NA           12     3  23     10       3   AM   Derailment
## 191  CA0312200     NA 028323C   12     3   7     10      57   AM     Hwy-Rail
## 192  0612FW031     NA 794986U   12     6  29      5       1   PM     Hwy-Rail
## 193   INDUSTRY     NA           12    12  19     12      36   PM        Other
## 194  CA1012200     NA 028400A   12    10   1     12      20   PM     Hwy-Rail
## 195     101024     NA 722354N   12     8  16      1      27   PM     Hwy-Rail
## 196   08312012     NA 026857M   12     8  31      7      47   AM     Hwy-Rail
## 197  TX0813203     NA 020480T   13     8  29      7      25   AM     Hwy-Rail
## 198     201301     NA 832163G   13    10  11      1      19   PM     Hwy-Rail
## 199 2013051720     NA           13     5  17      6       8   PM   Derailment
## 200  0213LV008     NA 762730C   13     2  19      8       0   AM     Hwy-Rail
## 201  201301060     NA 266901J   13     1  30      8       2   AM     Hwy-Rail
## 202   11012013     NA 501716M   13    11   1      8       4   AM     Hwy-Rail
## 203  201306321     NA 263418E   13     6  21     11      58   AM     Hwy-Rail
## 204     040613     NA 746055A   13     4   6      2      26   PM     Hwy-Rail
## 205  0313LK026     NA 787816H   13     3  26      9      17   AM     Hwy-Rail
## 206  TC1213203     NA 097605F   13    12   6      2      16   PM     Hwy-Rail
## 207  000119210     NA 050414M   13     8   7      5       8   AM     Hwy-Rail
## 208  NE0413200     NA 062976S   13     4   1      4       5   PM     Hwy-Rail
## 209     791254     NA 300794N   13     9  10      9      30   AM     Hwy-Rail
## 210 2013120106     NA           13    12   1      7      20   AM   Derailment
## 211  0513SL011     NA           13     5  25      2      35   AM         Side
## 212  000116641     NA 140833J   13     5  28      2       5   PM     Hwy-Rail
## 213     107886     NA           13    11  25     12       5   AM   Derailment
## 214  0413HO001     NA 743809A   13     4   2     10       3   AM     Hwy-Rail
## 215     140701     NA           14     7  23      1      55   PM   Derailment
## 216     133293     NA 500685M   14     6  23      9      30   AM     Hwy-Rail
## 217  000128940     NA 628160C   14     4  24     11       0   AM     Hwy-Rail
## 218  CA0314200     NA 028706E   14     3  22      8      35   PM     Hwy-Rail
## 219     819857     NA 300171E   14     7  14      1      20   PM     Hwy-Rail
## 220  000136853     NA 341261R   14    10  28      8      20   AM     Hwy-Rail
## 221  0614SA013     NA 415615R   14     6  13      2       2   PM     Hwy-Rail
## 222  000137001     NA 546495N   14    10  30      6      49   PM     Hwy-Rail
## 223     MRH001     NA 386381H   14     1   6      5      50   AM     Hwy-Rail
## 224  CA0614201     NA 028601R   14     6   1      9      25   AM     Hwy-Rail
## 225     133275     NA           14     6  22     11      51   PM  Obstruction
## 226  0715SA004     NA 742684Y   15     7   4     10      15   PM     Hwy-Rail
## 227  000151956     NA 908570A   15     9  10     12      59   PM     Hwy-Rail
## 228  NEC81625D     NA           15    10   5     10       4   AM   Derailment
## 229     118100     NA 725393P   15    11   6      2       0   PM     Hwy-Rail
## 230  TX0515100     NA           15     5   8      1      15   AM   Derailment
## 231     137404     NA           15     5  12      9      20   PM   Derailment
## 232 2015020343     NA 529902V   15     2   3      6      27   PM     Hwy-Rail
## 233    1162015     NA 501717U   15     1  16      3      56   PM     Hwy-Rail
## 234     842345     NA           15     3   2     10      40   AM SeeNarrative
## 235     849530     NA 300155V   15     5  10      1      34   PM     Hwy-Rail
## 236  0915LA001     NA 810883N   15     9   1      3       4   PM     Hwy-Rail
```

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## 237  0215LA023     NA           15     2  24      5      45   AM  Obstruction
## 238  000148646     NA           15     7   1     11      45   PM   Derailment
## 239  0615SL003     NA 290497P   15     6   5      3      56   PM     Hwy-Rail
## 240  000154107     NA 634243E   15    11   9      6      19   AM     Hwy-Rail
## 241  000142731     NA 629659J   15     3   9     12      19   PM     Hwy-Rail
## 242  TC1115201     NA 093052X   15    11  23     12      50   PM     Hwy-Rail
## 243     867948     NA 300692V   15    10  10      8      56   AM     Hwy-Rail
## 244  000153446     NA 638337U   15    10  20      5      10   PM     Hwy-Rail
## 245  CA0615201     NA 028442L   15     6  10     10       5   AM     Hwy-Rail
## 246      15281     NA           15    10   8      8      10   AM       Raking
## 247  1116PD002     NA 759578S   16    11   7      7      24   AM     Hwy-Rail
## 248     888868     NA 300881S   16     5  18      6      11   PM     Hwy-Rail
## 249     120060     NA 727825T   16     4   8      1      40   PM     Hwy-Rail
## 250  KS0316103     NA           16     3  14     12       2   AM   Derailment
## 251     895343     NA 300674X   16     7  21      8      58   AM     Hwy-Rail
## 252     902836     NA 300748M   16    10   5      9      31   AM     Hwy-Rail
## 253   05052016     NA 501709C   16     5   5     10      15   AM     Hwy-Rail
## 254     141786     NA           16     4   3      7      50   AM  Obstruction
## 255  CA0516201     NA 028596W   16     5  13     12      32   PM     Hwy-Rail
## 256  PR0616201     NA 003324M   16     6  26      9      45   AM     Hwy-Rail
## 257  000159507     NA 624308T   16     5   3     12      50   PM     Hwy-Rail
## 258     010416     NA 628146G   16     1   4      6      49   AM     Hwy-Rail
## 259      16010     NA 597759W   16     9   8      2      18   PM     Hwy-Rail
## 260     899379     NA 288991W   16     8  31      9      30   PM     Hwy-Rail
## 261  0316RS003     NA 751176H   16     3   3      6       8   PM     Hwy-Rail
## 262  0316RS011     NA           16     3   7      7      20   PM  Obstruction
## 263  201609513     NA           16     9  29      8      38   AM  Obstruction
## 264  0216PR017     NA 289771E   16     2  19     10      45   AM     Hwy-Rail
## 265  SCR171218     NA           17    12  18      7      33   AM   Derailment
## 266  NW0717101     NA           17     7   2      2      29   PM   Derailment
## 267  000171075     NA 634212F   17     8  18      7       0   AM     Hwy-Rail
## 268  000170611     NA           17     8   2      4      55   AM   Derailment
## 269 2017051832     NA           17     5  18      4      54   PM   Derailment
## 270  CA0517103     NA           17     5   5      5      25   AM  Obstruction
## 271  000173605     NA 623083M   17    12  21      2      47   PM     Hwy-Rail
## 272      17006     NA 626405J   17     1   6      7      15   PM     Hwy-Rail
## 273     146864     NA           17     3  27     10      38   AM   Derailment
## 274   08222017     NA 720164D   17     8  22     11      48   AM     Hwy-Rail
## 275  1117HO005     NA 755327J   17    11   3      3      51   PM     Hwy-Rail
## 276     146920     NA           17     4   3      9       0   AM   Derailment
## 277     146813     NA           17     3  24      9       0   AM   Derailment
## 278 EQ20170103     NA           17     1   4      8      18   AM  Obstruction
## 279      37517     NA 805500Y   17     2  14      3      37   AM     Hwy-Rail
## 280  000167264     NA 340185W   17     3   7      3      11   PM     Hwy-Rail
## 281  000170153     NA 628045V   17     7  11      3      16   PM     Hwy-Rail
## 282   2018T101     NA 224704E   18     1  31     11      16   AM     Hwy-Rail
## 283     975478     NA 300146W   18    10  10      1      59   PM     Hwy-Rail
## 284  0918HO043     NA 743688E   18     9  21      1      33   PM     Hwy-Rail
## 285      18007     NA 598361H   18     8  25     12       9   PM     Hwy-Rail
## 286  0818LK035     NA 794617X   18     8  18      1      10   PM     Hwy-Rail
## 287  000174491     NA           18     2   4      2      27   AM       HeadOn
## 288     953706     NA 283619A   18     3  24      8      37   PM     Hwy-Rail
## 289  000173806     NA           18     1   3      9      30   PM   Derailment
## 290  000177906     NA 050367G   18     7  30      4      15   PM     Hwy-Rail
```

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## 291  CH1118202     NA 079703Y   18    11  22      9      35   AM     Hwy-Rail
## 292     153605     NA 518010R   18     6   5     10      32   AM     Hwy-Rail
## 293     154953     NA           18     8   9      6      30   AM  Obstruction
## 294  201807361     NA 263412N   18     7   9      4      46   PM     Hwy-Rail
## 295  000179753     NA 627880S   18    11   8     10      39   AM     Hwy-Rail
## 296  0419ST016     NA 764083B   19     4   7      4       2   PM     Hwy-Rail
## 297  0819GC044     NA 450660C   19     8  30      3      52   PM     Hwy-Rail
## 298    1009562     NA 299818A   19     8  16      3      10   PM     Hwy-Rail
## 299     157343     NA 545580A   19     1  25      9      30   AM     Hwy-Rail
## 300  1019NC054     NA 751692P   19    10  28     12       6   AM     Hwy-Rail
## 301     191113     NA 498565T   19    11  13      4      29   PM     Hwy-Rail
## 302      69480     NA 526294T   19     3  25     12      48   PM     Hwy-Rail
## 303     132539     NA 522646H   19     1  21     12      38   PM     Hwy-Rail
## 304     050619     NA 906047B   19     5   6     10      18   AM     Hwy-Rail
## 305     999499     NA 300863U   19     5  24     10      25   AM     Hwy-Rail
## 306     132320     NA           19     1   6      8      13   PM   Derailment
## 307      69346     NA 338146F   19     2  26      7      21   PM     Hwy-Rail
## 308    1007149     NA 289680Y   19     7  28      5       3   PM     Hwy-Rail
##      CARS CARSDMG CARSHZD EVACUATE             DIVISION            STATION
## 1       0       0       0        0                  WTR            NODAWAY
## 2       0       0       0        0                  MET           SYRACUSE
## 3       0       0       0        0                  WSD            SHAFTER
## 4       0       0       0        0       TRANSPORTATION  NEW YORK NEW YORK
## 5       0       0       0        0                  WTR           WENDOVER
## 6       0       0       0        0                  WTR         HALLSVILLE
## 7       0       0       0        0         SAN ANTONIO          THOMASTON
## 8       0       0       0        0                  ETR              JESUP
## 9       0       0       0        0                  WTR          ANNAPOLIS
## 10      0       0       0        0             HOBOKEN           GARFIELD
## 11      0       0       0        0                  WSD            PLANADA
## 12      0       0       0        0               SYSTEM        TIPTONVILLE
## 13      0       0       0        0               SYSTEM             LAUREL
## 14     39      15      11       75              ST PAUL              MINOT
## 15      3       0       0        0       SOUTHERN CALIF              BORON
## 16      0       0       0        0                  PAC            HAYWARD
## 17      6       0       0        0          TWIN CITIES            RANDALL
## 18      0       0       0        0                  MAD         KENSINGTON
## 19      0       0       0        0                  SOU        HAINES CITY
## 20      0       0       0        0               SYSTEM            JAMAICA
## 21      0       0       0        0                 MADM          BALTIMORE
## 22      0       0       0        0              CHICAGO             AURORA
## 23      0       0       0        0                  SOU          BALTIMORE
## 24      0       0       0        0              HOUSTON       JACKSONVILLE
## 25      0       0       0        0                  SOU          RIDGELAND
## 26      0       0       0        0               SYSTEM          PLACENTIA
## 27      0       0       0        0                  SOU      CRESCENT CITY
## 28      0       0       0        0                  SWD         BIRMINGHAM
## 29      0       0       0        0            ALLEGHANY             HANOVER
## 30      0       0       0        0                  PAC               RODEO
## 31      0       0       0        0                  SOU           MCINTOSH
## 32      0       0       0        0                  PAC         SACRAMENTO
## 33      0       0       0        0                  CEN              LEEPER
## 34      0       0       0        0              CENTRAL           FLORENCE
## 35      0       0       0        0       TRANSPORTATION             HOBOKEN
```

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## 36     0       0       0        0      AMTRAK NEW YORK          SECAUCUS
## 37     0       0       0        0               SYSTEM           BURBANK
## 38     0       0       0        0            NEW HAVEN       NEW ROCHELLE
## 39     0       0       0        0          ROCK ISLAND           CHICAGO
## 40     0       0       0        0                  MAD           BRISTOW
## 41     0       0       0        0          TWIN CITIES             BLOOM
## 42     0       0       0        0               SYSTEM      PHILADELPHIA
## 43     0       0       0        0                  CEN       KANSAS CITY
## 44     0       0       0        0      COMMUTER OPERAT           CHICAGO
## 45     0       0       0        0                  SOU             FLORA
## 46     0       0       0        0               SYSTEM          NEW YORK
## 47     0       0       0        0                  NED         NEW HAVEN
## 48     0       0       0        0          SPRINGFIELD        NEW ALBANY
## 49     3       0       0        0              ALABAMA             ARABI
## 50     1       1       1      100          SAN ANTONIO           MACDONA
## 51     0       0       0        0                  NED           WINDSOR
## 52     0       0       0        0                TEXAS            VERNON
## 53     0       0       0        0         JACKSONVILLE            CLIMAX
## 54     0       0       0        0               NEWARK       LONG BRANCH
## 55     0       0       0        0               HARLEM     BEDFORD HILLS
## 56     0       0       0        0                  CEN      PORT CLINTON
## 57     0       0       0        0                  SOU       ROCKY MOUNT
## 58     0       0       0        0          SAN ANTONIO           NATALIA
## 59     0       0       0        0          TWIN CITIES            CLYMAN
## 60     0       0       0        0                  PAC         STEVENSON
## 61     0       0       0        0                  SOU          ROSELAND
## 62     0       0       0        0                  CEN              MACK
## 63     0       0       0        0                  SOU           RALEIGH
## 64     0       0       0        0                  SWD             SOMIS
## 65     0       0       0        0                  SWD           DE SOTO
## 66     0       0       0        0                  PAC             CISCO
## 67     0       0       0        0          SPRINGFIELD       BLYTHEVILLE
## 68     0       0       0        0             FLORENCE           HANDSOM
## 69     0       0       0        0 CHICAGO UNION STATIO      ELMWOOD PARK
## 70     0       0       0        0          ROCK ISLAND           CHICAGO
## 71     0       0       0      369       METRA ELECTRIC           CHICAGO
## 72    14       5       1     5200              PIEDMONT      GRANITEVILLE
## 73     0       0       0        0               SYSTEM          GLENDALE
## 74     0       0       0        0            RIVERLINE           BEVERLY
## 75    20      10       1     1012    NORTH LITTLE ROCK         TEXARKANA
## 76     0       0       0        0               SYSTEM        CHARLESTON
## 77     0       0       0        0                  SWD          COLUMBUS
## 78     0       0       0        0                  SOU             TAMPA
## 79     0       0       0        0                  PAC           SPRAGUE
## 80     0       0       0        0                  SWD          BEAUMONT
## 81     0       0       0        0                  SOU        PALM BEACH
## 82     0       0       0        0             CENTRAL             MARISSA
## 83     0       0       0        0      COMMUTER OPERAT           CHICAGO
## 84     0       0       0        0                 MADV          QUANTICO
## 85     0       0       0        0            ROSEVILLE            COLFAX
## 86     0       0       0        0              WICHITA             YUKON
## 87     0       0       0      200              FRANKLIN          FRANKLIN
## 88     0       0       0        0               SYSTEM         CRESTMONT
## 89     0       0       0        0                DENVER        ST GEORGE
```

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## 90     0       0       0        0              SYSTEM            BLANCA
## 91     5       0       0        0             ALABAMA              AXIS
## 92     0       0       0        0                 C&O     CATLETTSBURG
## 93     0       0       0        0        POWDER RIVER  GLENWOOD SPRINGS
## 94    16       0       0        0              KANSAS          AMARILLO
## 95     0       0       0        0                 CEN         MERMENTAU
## 96     0       0       0        0                 SOU            BOUTTE
## 97    13       7       1      350               TEXAS          CRAWFORD
## 98    15       1       0       71            ST LOUIS           BENTON
## 99     0       0       0        0            HERITAGE           LEMONT
## 100    0       0       0        0                 PAC       CASTLE ROCK
## 101    0       0       0        0                 CEN           JACKSON
## 102    2       0       0        0              SYSTEM       WRIGHT CITY
## 103    0       0       0        0           WATERBURY           MILFORD
## 104    0       0       0        0              SYSTEM        WARMINSTER
## 105    0       0       0        0              SYSTEM        WARMINSTER
## 106    0       0       0        0       NEW HAMPSHIRE            WOBURN
## 107    9       4       0        0              SYSTEM        MYRTLEWOOD
## 108    0       0       0        0    NORTH LITTLE ROCK             WYNNE
## 109    0       0       0        0    NORTH LITTLE ROCK          JONESBORO
## 110    0       0       0        0         NORTH PLATTE           MORRILL
## 111    0       0       0        0                 SWD           ONTARIO
## 112    0       0       0        0                 PAC         RIVERBANK
## 113    0       0       0        0                 PAC           BENICIA
## 114    0       0       0        0            DEARBORN           CHICAGO
## 115   28       5       2      212           SOUTHEAST       HATTIESBURG
## 116    0       0       0        0                 SOU          LAKELAND
## 117    0       0       0        0                 SOU        PLANT CITY
## 118    0       0       0        0                 SWD           SHAFTER
## 119    0       0       0        0                 SOU       GARDEN CITY
## 120    0       0       0        0             CENTRAL           CHICAGO
## 121    0       0       0        0                 MAD    WASHINGTON, DC
## 122    0       0       0        0                 CEN          BRIGHTON
## 123    0       0       0        0                 PAC           HANFORD
## 124    0       0       0        0                 SOU    CRYSTAL SPRINGS
## 125    0       0       0        0                 SWD           HOUSTON
## 126    0       0       0        0      SAN ANTONIO SU     NEW BRAUNFELS
## 127    0       0       0      225              SYSTEM       LOS ANGELES
## 128    0       0       0        0                 PAC            ELMIRA
## 129    0       0       0        0                 NST            CANTON
## 130    0       0       0        0              SYSTEM          STOCKTON
## 131    0       0       0        0           NASHVILLE         ARLINGTON
## 132    0       0       0        0           SOUTHEAST             CHUNKY
## 133    0       0       0        0                 CEN           CHICAGO
## 134    0       0       0        0                 CEN       CARLINVILLE
## 135    0       0       0        0                 SOU         CHARLOTTE
## 136    0       0       0        0             GEORGIA             SMARR
## 137    0       0       0        0              SYSTEM      PHILADELPHIA
## 138    0       0       0        0              NEWARK        PENNSAUKEN
## 139    0       0       0        0                 SWD       GAINESVILLE
## 140    0       0       0        0                 SOU        HARRISBURG
## 141    0       0       0        0              CAMDEN        PENNSAUKEN
## 142    0       0       0      100              SYSTEM      PHILADELPHIA
## 143    0       0       0        0                 SOU            MCCOMB
```

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## 144   75      19      15      200            CHICAGO      CHERRY VALLEY
## 145    0       0       0        0     FORT WORTH SU             MARLIN
## 146    0       0       0        0              SOU               CADE
## 147    0       0       0        0              PAC           RICHMOND
## 148    0       0       0        0              CEN             OTTAWA
## 149    0       0       0        0              CEN             GOSHEN
## 150    0       0       0        0              SOU    WEST PALM BEACH
## 151    0       0       0        0              SOU       FAYETTEVILLE
## 152    0       0       0        0              CEN        LITTLE ROCK
## 153    0       0       0        0   SAN ANTONIO SU      ARTESIA WELLS
## 154    0       0       0        0             MADM         WASHINGTON
## 155    0       0       0        0              CEN            DETROIT
## 156    0       0       0        0              SOU             MEBANE
## 157    0       0       0        0              SWD            SHAFTER
## 158    0       0       0        0      JACKSONVILLE          LAKE COMO
## 159    0       0       0        0              GULF            CROWLEY
## 160    0       0       0        0               NST           ORISKANY
## 161    0       0       0        0              CEN       GRANITE CITY
## 162    0       0       0        0           SYSTEM           EL MONTE
## 163    0       0       0        0                             CHICAGO
## 164    0       0       0        0                          NORTH BERWICK
## 165    0       0       0       70    TRANSPORTATION            HOBOKEN
## 166    0       0       0        0                             HUGHSON
## 167    0       0       0        0                             ANTIOCH
## 168    0       0       0        0              MAD         WILMINGTON
## 169    0       0       0        0          ALABAMA            SLIDELL
## 170    0       0       0        0                          OAK FOREST
## 171    0       0       0        0                           BENKELMAN
## 172    6       0       0        0                           NABORTON
## 173    0       0       0      277                          POMPANO BEACH
## 174    0       0       0        0     COMMUTER OPS        MT PROSPECT
## 175    0       0       0        0                            LOVELOCK
## 176    0       0       0        0           SYSTEM          DEER PARK
## 177    0       0       0        0             <NA>               KENT
## 178    0       0       0        0             <NA>              LEONI
## 179    0       0       0        0             <NA>         YAZOO CITY
## 180    0       0       0        0             <NA>      SANTA CLARITA
## 181   51       5       1      680             <NA>           PAULSBORO
## 182    0       0       0        0             <NA>         SACRAMENTO
## 183    0       0       0        0             <NA> CARDIFF BY THE SEA
## 184    0       0       0        0             <NA>              NILES
## 185    0       0       0        0             <NA>           EDGEWOOD
## 186    0       0       0        0             <NA>            CHICAGO
## 187    0       0       0        0             <NA>            JACKSON
## 188    9       0       0        0             <NA>            MIDLAND
## 189    0       0       0        0             <NA>             AUSTIN
## 190    0       0       0        0             <NA>       PHILADELPHIA
## 191    0       0       0        0             <NA>           CORCORAN
## 192    0       0       0        0             <NA>          ARLINGTON
## 193    9       2       1        0             <NA>         ST GABRIEL
## 194    0       0       0        0             <NA>            HANFORD
## 195    0       0       0        0             <NA>          JAMESTOWN
## 196    0       0       0      160             <NA>          SAN DIEGO
## 197    0       0       0        0             <NA>         FORT WORTH
```

```
## 198    0       0       0        0              <NA>       HUTTONSVILLE
## 199    0       0       0        0              <NA>         BRIDGEPORT
## 200    0       0       0        0              <NA>            BEAUMONT
## 201    0       0       0        0              <NA>       LITTLE FALLS
## 202    0       0       0        0              <NA>              DELRAN
## 203    0       0       0        0              <NA>           GARFIELD
## 204    0       0       0        0              <NA>       SAN FERNANDO
## 205    0       0       0        0              <NA>              WEINER
## 206    0       0       0        0              <NA>            STAPLES
## 207    0       0       0        0              <NA>           PALMETTO
## 208    0       0       0        0              <NA>            BATAVIA
## 209    0       0       0        0              <NA>           THORNTON
## 210    0       0       0        0              <NA>    NEW YORK -BRONX
## 211    0       0       0        0              <NA>            CHAFFEE
## 212    4       3       1        0              <NA>           ROSEDALE
## 213    0       0       0        0              <NA>        SPARTANBURG
## 214    0       0       0        0              <NA>              LISSIE
## 215    0       0       0        0              <NA>            SKAGWAY
## 216    0       0       0        0              <NA>             BERLIN
## 217    0       0       0        0              <NA>       DELRAY BEACH
## 218    0       0       0        0              <NA>             MERCED
## 219    0       0       0        0              <NA>       INDEPENDENCE
## 220    0       0       0        0              <NA>           REYNOLDS
## 221    0       0       0        0              <NA>        SAN ANTONIO
## 222    8       0       0        0              <NA>           VANDALIA
## 223    0       0       0        0              <NA>               NILES
## 224    0       0       0        0              <NA>              MADERA
## 225    0       0       0        0              <NA>           MANSFIELD
## 226    0       0       0        0              <NA>             HARWOOD
## 227    0       0       0        0              <NA>             EMPORIA
## 228    0       0       0        0              <NA>          NORTHFIELD
## 229    0       0       0        0              <NA>          BIRMINGHAM
## 230    5       0       0        0              <NA>        VALLEY VIEW
## 231    0       0       0        0              <NA>       PHILADELPHIA
## 232    0       0       0        0              <NA>            VALHALLA
## 233    0       0       0        0              <NA>              DELRAN
## 234    0       0       0        0              <NA>            LUCEDALE
## 235    0       0       0        0              <NA>               AMITE
## 236    4       0       0        0              <NA>   CITY OF INDUSTRY
## 237    0       0       0        0              <NA>              OXNARD
## 238   27       1       0     5000              <NA>           MARYVILLE
## 239    0       0       0        0              <NA>          WILMINGTON
## 240    0       0       0        0              <NA>             CASSATT
## 241    0       0       0        0              <NA>             HALIFAX
## 242    0       0       0        0              <NA>           GRANVILLE
## 243    0       0       0        0              <NA>         MINTER CITY
## 244    0       0       0        0              <NA>              VIENNA
## 245    0       0       0        0              <NA>               LATON
## 246    0       0       0        0              <NA>         WINTER PARK
## 247    0       0       0        0              <NA>              AURORA
## 248    0       0       0        0              <NA>               FLORA
## 249    1       0       0        0              <NA>            SARALAND
## 250    0       0       0        0              <NA>            CIMARRON
## 251    0       0       0        0              <NA>            GLENDORA
```

## 252	0	0	0	0	<NA>	CRUGER
## 253	0	0	0	0	<NA>	RIVERTON
## 254	0	0	0	0	<NA>	CHESTER
## 255	0	0	0	0	<NA>	MADERA
## 256	0	0	0	0	<NA>	TRINIDAD
## 257	0	0	0	0	<NA>	PLANT CITY
## 258	0	0	0	80	<NA>	LAKE WORTH
## 259	0	0	0	0	<NA>	DALLAS
## 260	0	0	0	0	<NA>	GILMAN
## 261	0	0	0	0	<NA>	BERKELEY
## 262	0	0	0	214	<NA>	SUNOL
## 263	0	0	0	0	<NA>	HOBOKEN
## 264	0	0	0	0	<NA>	JOLIET
## 265	0	0	0	0	<NA>	DU PONT
## 266	0	0	0	0	<NA>	STEILACOOM
## 267	0	0	0	0	<NA>	PATRICK
## 268	70	13	3	1000	<NA>	HYNDMAN
## 269	0	0	0	0	<NA>	RYE
## 270	0	0	0	0	<NA>	POND
## 271	0	0	0	0	<NA>	AUBURNDALE
## 272	0	0	0	0	<NA>	KISSIMMEE
## 273	0	0	0	0	<NA>	CHICAGO
## 274	0	0	0	0	<NA>	BRYSON CITY
## 275	0	0	0	0	<NA>	HOUSTON
## 276	0	0	0	0	<NA>	NEW YORK NEW YORK
## 277	0	0	0	0	<NA>	NEW YORK NEW YORK
## 278	0	0	0	0	<NA>	BROOKLYN
## 279	0	0	0	58	<NA>	AURORA
## 280	19	0	0	0	<NA>	BILOXI
## 281	0	0	0	0	<NA>	SEBRING
## 282	0	0	0	0	<NA>	CROZET
## 283	0	0	0	0	<NA>	FLUKER
## 284	0	0	0	0	<NA>	MISSOURI CITY
## 285	0	0	0	42	<NA>	FORT WORTH
## 286	0	0	0	0	<NA>	HALLSVILLE
## 287	0	0	0	0	<NA>	WEST COLUMBIA
## 288	0	0	0	0	<NA>	POTTERVILLE
## 289	0	0	0	0	<NA>	SAVANNAH
## 290	0	0	0	0	<NA>	ATLANTA
## 291	0	0	0	0	<NA>	WYANET
## 292	0	0	0	0	<NA>	MOUNT JOY
## 293	0	0	0	0	<NA>	METUCHEN
## 294	0	0	0	0	<NA>	GARFIELD
## 295	0	0	0	0	<NA>	PALATKA
## 296	0	0	0	0	<NA>	CLINT
## 297	0	0	0	0	<NA>	DAYTON
## 298	0	0	0	0	<NA>	TERRY
## 299	0	0	0	0	<NA>	THREE OAKS
## 300	0	0	0	0	<NA>	RICHMOND
## 301	0	0	0	0	<NA>	SANTA ROSA
## 302	0	0	0	0	<NA>	PAWLING
## 303	0	0	0	0	<NA>	GARY
## 304	0	0	0	0	<NA>	AURORA
## 305	0	0	0	0	<NA>	TINSLEY

```
## 306   33      20       4      280                 <NA>            BARTOW
## 307    0       0       0      900                 <NA>          WESTBURY
## 308    0       0       0        0                 <NA>    UNIVERSITY PARK
##     MILEPOST STATE TEMP VISIBLTY WEATHER TRNSPD TYPSPD TRNNBR TRNDIR  TONS
## 1     0419.9    19   27     dark   clear     52      R      5      4     0
## 2     0289.3    36   31      day    snow     59      R    286      3     0
## 3     0907.2     6   50      day   clear     79      R    714      3     0
## 4                36   76      day   clear      0      E   PA61      3     0
## 5     0814.6    49   80     dark   clear     72      E      5      4     0
## 6     0076.0    48   74      day   clear     46      R     21      2     0
## 7       43.9    48   98      day   clear     38      E   ASPB      2  2817
## 8     0542.0    13   89      day   clear     38      R     91      2     0
## 9     0104.5    29   71     dark    rain     44      R     21      2     0
## 10      12.6    34   89      day   clear     60      E     55      4   200
## 11    1046.9     6   70     dusk   clear     79      E    703      4     0
## 12               47   45      day   clear      7      E   TKEN      1   300
## 13      56.4    18   28     dark  cloudy     12      E    25X      2     0
## 14     471.6    38   -5     dark  cloudy     41      R    292      3 12015
## 15     780.2     6   60     dark   clear     67      R   PCHI      4  5018
## 16     0023.0    6   54     dark   clear     60      R     14      1     0
## 17     115.7    27   85      day   clear     47      R   ZCHC      4   839
## 18     0011.8   24   95      day   clear     59      R     30      3     0
## 19     0832.9   12   97      day   clear     76      R     92      1     0
## 20          9   36   90      day   clear      0      E   L180      4     0
## 21     0095.9   24   75      day   clear     18      R    437      1     0
## 22               17   75      day   clear     13      E   ASUB      4   635
## 23     0095.9   24   75      day   clear     15      R     90      1     0
## 24      56.3    48   76      day   clear     40      E   QBLN      1  6088
## 25     0449.3   45   78      day   clear     80      R     97      2     0
## 26      40.6     6   65      day   clear      0      R   ML80      4     0
## 27     0722.2   12   85      day   clear     56      R     52      1     0
## 28     0157.2    1   72      day   clear     50      R     19      2     0
## 29     0101.9   51   40      day    rain     25      E    ONE      4     0
## 30     0022.8    6   60      day   clear     43      R    520      3     0
## 31     0522.3   13   70      day   clear     78      R     91      2     0
## 32     0088.5    6   70     dark   clear      0      E    715      4     0
## 33     0133.2   29   40      day  cloudy     55      R     22      1     0
## 34      15.60   21   78      day   clear     47      R   61AT      2  6653
## 35               34   22     dark    snow      8      E   33RD      4     0
## 36        5.6   34   70      day   clear     69      R   3920      3     0
## 37      12.77    6   60      day   clear     79      R   ML 2      3     0
## 38      17.4    36   80     dark   clear     12      E    JOB      3     0
## 39       4.7    17   55      day   clear     68      R    519      4   275
## 40     0036.3   51   93      day   clear     78      R     20      1     0
## 41      94.7    38   56      day  cloudy     55      E   LTWI      4   944
## 42               42   25     dark    snow      5      R   EXTR      1     0
## 43     0003.9   20   28      day   clear     24      R      4      3     0
## 44        0.0   17   62      day  cloudy      9      E   M611      1   350
## 45     0196.5   28   77      day   clear     78      R     58      1     0
## 46          1   36   65     dawn   clear      0      R   LI20      4     0
## 47     0077.6    9   64     dark   clear     60      R   6695      4     0
## 48     560.4    28   88      day   clear     38      R   QCLO      2  2210
## 49     003.70   22   80      day  cloudy     19      R   AN20      2   184
## 50     225.3    48   77     dawn  cloudy     45      R   MHOT      4  7291
```

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## 51    0039.9     9   73     day  cloudy     79      R    491      4     0
## 52     160.5    48   85     day  cloudy     41      R   CBTM      3 17592
## 53    0718.6    13   90     day   clear     40      R   Q658      1  4208
## 54      22.4    34   65    dark   clear     14      R   DRIL      4     0
## 55      38.1    36   47     day  cloudy     60      E    638      2     0
## 56    0251.0    39   40    dark  cloudy     74      R     48      3     0
## 57    0115.2    37   20    dark   clear     73      R     97      2     0
## 58     284.4    48   86     day   clear     48      R   ZYCM      2  3511
## 59     276.0    55   60     day     fog     29      R   OC7S      4  8122
## 60    0058.4    53   48     day    rain     60      R     27      4     0
## 61    0840.9    22   65     day  cloudy     74      R     58      1     0
## 62    0473.3     8   35    dark  cloudy     49      R      5      4     0
## 63    0083.6    37   94     day   clear     48      R     80      3     0
## 64    0417.0     6   63    dusk   clear     64      R    796      2     0
## 65    0048.7    29   50    dark   clear     60      R     21      2     0
## 66    0508.3    49   37     day   clear     70      E      6      3     0
## 67     234.0     5   90     day   clear     53      E   SMEM      1  1155
## 68    0045.2    51   68    dark     fog     34      R   K960      2  2100
## 69     10.45    17   42    dark  cloudy     70      E   NCS1      4     0
## 70       4.7    17   80     day   clear     69      R    504      3   275
## 71      9.66    17   82    dusk   clear     30      E   339/      2     0
## 72    178.30    45   50    dark   clear     47      R   192P      1  2553
## 73       6.4     6   60    dark    rain     74      R   ML10      3     0
## 74      14.2    34   65    dusk   clear     44      R    309      2     0
## 75     417.8     5   59    dark   clear      0      R   MPBH      4  2790
## 76       5.0    49   60     day  cloudy      0      E   HVRR      2   465
## 77    0086.6    48   80     day   clear     69      E      2      3     0
## 78    0877.7    12   85     day   clear     76      R     91      2     0
## 79    0044.3    53   32    dark   clear     40      R     28      3     0
## 80    0279.3    48   89     day  cloudy      9      R      2      3     0
## 81    0964.1    12   82     day   clear     76      E     92      1     0
## 82     37.40    17   30     day   clear     55      R   C713      1  3327
## 83       5.2    17   80     day   clear     61      R   M39-      4     0
## 84    0079.7    51   35    dawn   clear     42      R    304      1     0
## 85     162.7     6   43     day   clear     40      E   WREC      4  1190
## 86     503.7    40   60     day   clear     47      R   RCKL      3  5948
## 87      28.4    25   50    dawn  cloudy     40      R    710      3     0
## 88      2.80    42   84     day   clear      0      R   #113      1     0
## 89     109.5    20   70     day   clear     53      R   CTWW      4  2664
## 90     231.2     8   87     day   clear     27      R   PASS      4   160
## 91    128.20     1   90     day   clear     37      R   A89A      2   955
## 92    0514.8    21   35    dark   clear     21      R             3     0
## 93     376.1     8   50     day   clear     48      R   XFRS      3  2858
## 94     560.9    48   28    dark   sleet     61      R   ZALT      4  4617
## 95    0179.4    22   85     day   clear     37      R      2      3     0
## 96    0027.9    22   95     day  cloudy     69      R      1      4     0
## 97     249.6    48   88     day   clear     52      R   HTPL      4  4964
## 98     306.0    17    5    dark   clear     30      E   MHOY      1  6407
## 99      23.4    17   79     day   clear     79      R   TRAI      2     0
## 100   0083.8    53   80     day   clear     75      R    507      2     0
## 101   0079.2    26   82     day   clear     75      R    350      3     0
## 102      6.9    40   85     day   clear     20      R   WEST      4  2216
## 103      0.6     9   72     day   clear     47      R   1926      1     0
## 104     7.25    42   85     day   clear     48      R   # 42      1     0
```

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## 105     7.25    42   36      day  cloudy     48      R   D919      1     0
## 106     10.5    25   45      day  cloudy     62      R    322      2     0
## 107     48.8     1   65      day   clear      4      R   S100      3  2352
## 108    336.4     5   59      day    rain     50      R   MPSS      3  8335
## 109    132.5     5   78      day   clear     62      R   ZYCH      2  3237
## 110    160.7    31   70     dark  cloudy     27      E   CJRO      2     0
## 111   0524.0     6   77      day   clear     29      R      2      3     0
## 112   1094.5     6   80      day   clear     78      R    713      4     0
## 113   0040.1     6   80      day   clear     38      R    541      4     0
## 114   0517.2    17   36      day   clear     33      R    371      4     0
## 115     63.8    28   58      day   clear     11      R   LGP1      2  6600
## 116   0852.9    12   95      day   clear     74      R     92      1     0
## 117   0895.7    12   95      day   clear     67      R     92      2     0
## 118   0904.4     6   97      day   clear     64      R    715      4     0
## 119   0487.7    13   80     dark   clear     79      R     98      1     0
## 120     1.40    17   20     dark  cloudy      0      R   SWS8      2     0
## 121   0136.0    11   40      day   clear      0      R             2     0
## 122   0242.9    17   45      day  cloudy     51      R    301      2     0
## 123   0959.8     6   75      day   clear     70      R    717      4     0
## 124   0751.2    28   90      day   clear     79      R     59      2     0
## 125   0349.1    48   42     dark  cloudy     68      R      1      4     0
## 126   230.12    48   88      day   clear     52      E   AMXA      1  1939
## 127    444.2     6   74      day   clear     42      R   ML 1      4     0
## 128   0058.3     6   95      day   clear     79      R    736      3     0
## 129      214    25   43      day   clear      0      R    917      4     0
## 130     83.9     6   88      day   clear      9      R   ACE4      1 29000
## 131   0352.4    47   80      day   clear     47      R   Q269      2  1939
## 132   0014.4    28   72      day    rain      8      E   M923      3     0
## 133   0000.5    17    0      day   clear     13      R      3      2     0
## 134   0221.9    17   -2      day   clear     77      R    302      1     0
## 135   0370.7    37   62      day   clear     69      E     74      1     0
## 136   S212.4    13   70      day  cloudy     25      R   GO2G      1   305
## 137     6.20    42   27     dark    snow      0      R   #019      2     0
## 138      2.1    34   28     dark    snow     45      R   4687      2     0
## 139   0406.5    48   57      day  cloudy     54      R    821      2     0
## 140   0361.5    37   35      day   clear     70      R     73      2     0
## 141      3.5    34   34      day   clear      4      R    229      2     0
## 142      5.4    42   45      day  cloudy     50      E   4712      3     0
## 143   0816.7    28   70      day  cloudy     73      E     59      2     0
## 144    80.10    17   66     dark    rain     34      R   U706      3 11125
## 145   132.63    48   87      day   clear     47      R   GSBE      1  3206
## 146   0132.6    22   83      day   clear     46      R      2      3     0
## 147   0013.4     6   50     dark   clear     50      E    751      4     0
## 148   0061.9    17   80      day   clear     80      R      5      4     0
## 149   0410.6    18   75     dark   clear     77      R     30      3     0
## 150   0945.0    12   89      day   clear     79      E   0097      2     0
## 151   0209.2    37   70     dark   clear     30      E   0053      2     0
## 152   0298.4     5   13     dark  cloudy     26      R     21      2     0
## 153   356.68    48   92      day   clear     45      E   QMXA      1  4887
## 154   0135.7    11   50      day   clear     12      R   4910      2     0
## 155   0004.5    26   40      day   clear     58      R    353      4     0
## 156   0031.6    37   72      day   clear     59      R     73      4     0
## 157   0912.9     6   95      day   clear     77      E    714      2     0
## 158   0713.7    12   90      day   clear     69      R     98      1     0
```

```
## 159   0168.1    22   85      day   clear     66      R      2      3     0
## 160   0243.0    36   75      day   clear     69      R     63      4     0
## 161   0275.8    17   85      day   clear     48      R    306      1     0
## 162    15.12     6   75      day   clear     58      E   ML 3      3     0
## 163      0.6    17   85      day   clear     12      R   A124      3     0
## 164   0234.2    23   89      day   clear     75      R    681      3     0
## 165            34   62      day   clear     13      E    820      3     0
## 166   1083.8     6   92      day   clear     44      R    713      4     0
## 167   1139.0     6   65     dark   clear     79      E    718      3     0
## 168   0026.8    10   82      day   clear      0      R     92      1     0
## 169   0167.9    22   74      day   clear     47      R     20      1     0
## 170     21.7    17   97      day   clear     68      R    420      3     0
## 171   0344.0    31   75      day  cloudy     55      E      6      3     0
## 172    281.1    22   90      day  cloudy     47      E   MFWL      2  4283
## 173   1007.4    12   75     dark  cloudy     50      R   P672      1     0
## 174     18.8    17   70      day   clear     51      R   M636      2     0
## 175   0318.6    32   85      day   clear     79      R      5      4     0
## 176     38.5    36   50     dawn    rain     65      R   2013      4     0
## 177   0016.1    53   48     dark    rain     67      R    509      2     0
## 178   0068.2    26   36      day   clear     60      E    351      4     0
## 179   0172.2    28   50      day   clear     79      E     59      2     0
## 180    28.92     6   73     dark   clear     45      E   ML 2      4     0
## 181   013.70    34   34     dawn   clear      8      R   FC42      2  9321
## 182   136.00     6   60      day   clear     41      R      7      2     0
## 183   0239.8     6   47      day   clear     83      E    774      3     0
## 184   0190.4    26   62      day   clear     61      R    350      3     0
## 185   0795.8    12   72      day   clear     60      E     91      2     0
## 186            17   90      day   clear      0              48      2     0
## 187   0734.9    28   95      day   clear     75      R     59      2     0
## 188   554.74    48   71      day   clear     62      R   ZLCA      3  5556
## 189    69.04    48   68     dawn  cloudy     40      R    103      3     0
## 190      0.0    42   69      day  cloudy     15      E   3421      2     0
## 191   0934.2     6   59      day   clear     52      R    713      4     0
## 192   0236.5    48  102      day   clear     47      R     21      4     0
## 193   381.00    22   77      day   clear      8      R   R974      3     0
## 194   0959.8     6  100      day   clear     79      R    712      3     0
## 195   0294.6    37   80      day   clear     51      E     74      1     0
## 196    265.5     6   73     dawn   clear     25      R    636      3     0
## 197    342.3    48   90     dawn   clear     25      R   XBNT      1  3133
## 198     71.8    54   55      day   clear     10      E   CMS2      4     0
## 199     53.3     9   70      day   clear     74      R   1548      3     0
## 200   287.02    48   58      day   clear     59      R   EDYL      3   175
## 201     19.2    34   41      day     fog     59      R   1006      3     0
## 202     10.9    34   71      day    rain     53      R    221      2     0
## 203     11.3    34   70      day   clear     48      R   1255      4     0
## 204    17.87     6   71      day   clear     76      E   ML 2      3     0
## 205   146.29     5   40      day  cloudy     59      R   MJBP      2  2234
## 206   0133.3    27   11      day   clear     62      E      8      3     0
## 207   0030.4    13   80     dark   clear     46      R   Q600      1  7338
## 208    266.3    19   41      day   clear     58      R   DGAL      4     0
## 209   0151.9    28   85      day   clear     79      E     59      2     0
## 210     11.0    36   35      day   clear     82      R   8808      2     0
## 211    131.0    29   50     dark   clear     47      R   2 AS      2  4782
## 212   0087.4    24   75      day  cloudy     48      R   Q409      4  2890
```

```
## 213   0459.2    45   29     dark    clear     60      E     20      1     0
## 214   0061.6    48   70      day    clear     78      R      2      3     0
## 215     20.2     2   58      day   cloudy     27      R     23      1   415
## 216   0022.5     9   80      day    clear     80      E    490      1     0
## 217    989.1    12   89      day    clear     73      R   P618      1     0
## 218   1065.3     6   57     dusk    clear     77      E    718      3     0
## 219   0846.7    22   84      day    clear     79      R     59      2     0
## 220   0093.9    18   69      day    clear     60      E    851      1     0
## 221   0249.8    48   92      day    clear     79      E     22      1     0
## 222   0172.3    17   50     dark     rain     46      R   Q332      3 10082
## 223   MP 12.    17  -13     dawn    clear     60      E   TRAI      3     0
## 224   1015.1     6   75      day    clear     79      R    701      4     0
## 225   0200.0    25   62     dark    clear    107      E    132      3     0
## 226   0144.1    48   80     dark    clear     74      R      1      4     0
## 227   0073.3    51   82      day   cloudy     70      E     80      1     0
## 228   0065.2    50   45      day    clear     59      R     55      2     0
## 229              1   78      day    clear     44      R     20      1     0
## 230    398.8    48   64     dark    clear     34      R   ZWSP      2  4928
## 231   0000.0    42   70     dark    clear    106      R    188      3     0
## 232     26.6    36   16     dark    clear     58      E    659      1     0
## 233       11    34   39      day    clear     50      R    284      1     0
## 234    28.40    28   70      day   cloudy      0      R   CRAN      1     0
## 235   0842.6    22   85      day    clear     77      R     59      2     0
## 236    23.38     6   84      day    clear     40      R   KLBG      3  7922
## 237    406.2     6   46     dark    clear     56      R    102      2     0
## 238   0282.1    47   70     dark   cloudy     34      R   S541      2  5803
## 239   0051.4    17   80      day    clear     52      R     22      1     0
## 240   0312.1    45   55     dark   cloudy     59      E     92      1     0
## 241   0089.8    37   64      day    clear     70      E     80      1     0
## 242   0180.9    38   35      day    clear     77      R      7      4     0
## 243   0000.0    28   62      day    clear     70      E     59      2     0
## 244   0702.0    13   72     dusk    clear     46      R   L230      1  3376
## 245   0982.0     6   85      day    clear     79      E    702      3     0
## 246   MP A78    12   92      day    clear     28      R   P311      2   185
## 247   0743.1    41   65      day    clear     39      R    500      1     0
## 248   0200.6    28   75      day   cloudy     67      R     58      1     0
## 249   138.66     1   78      day    clear     42      E   A89A      2  2648
## 250   0372.8    20   46     dark   cloudy     60      R      4      3     0
## 251   0097.9    28   89      day    clear     45      E     59      2     0
## 252   0140.7    28   70      day    clear     79      E     59      2     0
## 253      8.3    34   55      day   cloudy     30      R   297/      2     0
## 254   0015.7    42   50      day    clear    102      R     89      2     0
## 255   1012.1     6   85      day    clear     79      E    713      4     0
## 256   0632.7     8   77      day    clear     74      E      3      4     0
## 257   0859.5    12   82      day    clear     70      E     91      2     0
## 258    977.3    12   63      day    clear     64      R   P604      1     0
## 259   0641.6    48   95      day    clear     57      E     21      4     0
## 260   0083.2    17   65     dark    clear     73      E     59      2     0
## 261   0006.0     6   60     dusk    clear     79      E    718      2     0
## 262    34.00     6   46     dark     rain     40      R   ACE1      3   275
## 263       .1    34   63      day   cloudy     21      R   1614      3     0
## 264   0040.5    17   61      day    clear     64      E    303      2     0
## 265   0019.8    53   48     dawn     rain     78      R    501      2     0
## 266   0014.4    53   78      day    clear     32      R    506      1     0
```

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## 267   0284.8    45   80      day  cloudy     54      E     92      1     0
## 268   0192.3    42   64     dawn   clear     29      R   Q388      3 18252
## 269     24.5    36   95      day   clear     56      R   1373      4     0
## 270   0919.4     6   67     dawn   clear     80      E    711      3     0
## 271   0842.3    12   80      day   clear     72      E     91      1     0
## 272   0813.7    12   78     dark  cloudy     79      E     92      1     0
## 273   0000.9    17   48      day    rain     13      R     49      1     0
## 274     79.9    37   80      day  cloudy      9      E     NG      4   935
## 275     7.29    48   85      day  cloudy     17      E   ZLAJ      3  1976
## 276        0    36   55      day   clear     13      R   3926      3     0
## 277       .2    36   42      day   clear      5      E   6214      3     0
## 278        0    36   44      day   clear     12      R   2817      4     0
## 279    10.89     8   20     dark   clear     69      R   4038      1     0
## 280   0726.6    28   68      day   clear     19      R   Q606      1  3990
## 281   0880.2    12   88      day  cloudy     71      E     92      1     0
## 282   0195.8    51   33      day   clear     61      R    923      4     0
## 283   0837.4    22   86      day   clear     79      E     59      2     0
## 284   0017.6    48   93      day  cloudy     57      E      2      3     0
## 285    626.3    48   97      day   clear     75      R    TRE      4   119
## 286   0078.3    48  102      day   clear     75      E     21      2     0
## 287   0367.1    45   39     dark  cloudy     52      R     91      2     0
## 288   0208.2    26   29     dark   clear     63      E    364      3     0
## 289   0490.7    13   26     dark   clear      5      E     98      2     0
## 290   0012.4    13   89      day  cloudy     39      E   Q197      2  1085
## 291   0112.5    17   27      day   clear     78      R    381      4     0
## 292   0078.6    42   70      day   clear     79      R    648      3     0
## 293     25.8    34   76     dawn   clear     90      R   3701      4     0
## 294     12.9    34   88      day   clear     62      R     66      3     0
## 295   0690.5    12   82      day   clear     73      E     97      2     0
## 296   0807.3    48   75      day   clear     70      E      1      4     0
## 297   0404.5    48   92      day   clear     60      E      2      3     0
## 298   0746.5    28   95      day   clear     77      E     59      2     0
## 299   0211.8    26   -3      day   clear    110      R    350      3     0
## 300   0013.5     6   59     dark   clear     70      E     14      3     0
## 301     55.3     6   55      day  cloudy     35      E   TRAI      2     0
## 302     64.6    36   55      day   clear     57      R    956      2     0
## 303   0499.5    18   10      day   clear     58      E    365      4     0
## 304    10.36     8   67      day   clear     45      R   4056      1     0
## 305   0186.6    28   86      day   clear     51      E     59      2     0
## 306   S113.0    13   50     dark   clear     47      R   192G      3  4360
## 307     21.8    36   25     dark   clear     75      R   LI 2      4     0
## 308   0031.4    17   86      day  cloudy     69      E    393      2     0
##         TYPEQ EQATT              TRKNAME TRKCLAS TRKDNSTY TYPTRK RRCAR1 CARNBR1
## 1    Commuter     Y          SINGLE MAIN       4   000000      1    AMT     140
## 2    Commuter     Y                    1       4   000000      1    ATK     414
## 3    Commuter     Y                 MAIN       4   000000      1    ATK    2012
## 4        Yard     N             TRACK 3       3       24      1     PA     612
## 5    Commuter     Y                 MAIN       4   000000      1    AMT     143
## 6    Commuter     Y          SINGLE MAIN       5   000000      1    AMT     163
## 7   Passenger     Y          SINGLE MAIN       3   005.78      1     NS    9740
## 8    Commuter     Y                 MAIN       4   000000      1    AMT     158
## 9    Commuter     Y                 MAIN       3   000000      1    AMT     131
## 10       Work     Y           MAIN TR #1       4               1    NJT    4134
## 11   Commuter     Y            MAIN LINE       4   000000      1    ATK    2052
```

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## 12  Passenger     Y    SINGLE MAIN TRACK       X             1   TKEN    9435
## 13   Commuter     Y    SINGLE MAIN TRACK       1             .   1   WVRR       5
## 14  Passenger     Y          SINGLE MAIN       3        000024   1    SOO   73223
## 15  Passenger     Y MOJAVE SUB MAIN LINE       5        000.00   1   BNSF    4173
## 16   Commuter     Y                MAIN       5        000000   1    ATK    2011
## 17  Passenger     Y                MAIN       4        063.00   1   BNSF    5394
## 18   Commuter     Y              NO.#1        4        000000   1    AMT    1750
## 19   Commuter     Y                MAIN       4        000000   1    AMT      10
## 20   Commuter     Y      2 STATION TRACK       1               1     LI    9768
## 21       Work     Y              TRK #6       2        000000   1   MARC    7809
## 22       Work     Y                LEAD       3               2   METX     197
## 23   Commuter     Y              TRK #6       2        000000   1    ATK      55
## 24  Passenger     Y          SINGLE MAIN       4        039.00   1     UP    5620
## 25   Commuter     Y                MAIN       4        000000   1    AMT      50
## 26       Work     Y          SOUTH TRACK       4               1     ML     634
## 27   Commuter     Y                MAIN       4        000000   1    AMT   32084
## 28   Commuter     Y                MAIN       4        000000   1    AMT      38
## 29      Other     Y        PIEDMONT MAIN       2        000006   1   GRMS       1
## 30   Commuter     Y           MAIN NO.#1       4        000000   1    AMT    8305
## 31   Commuter     Y               NO.#2        4        000000   1    AMT     199
## 32   Commuter     Y               NO.#2        3        000000   1    AMT    2001
## 33   Commuter     Y                MAIN       3        000000   1    AMT     169
## 34  Passenger     Y                MAIN       4         060.9   1    NSE    8646
## 35       Yard     Y             TRACK 1       3               1     PA     808
## 36       Work     Y     PORTAL INT. TK#2       6        000000   1   NJTR    1368
## 37       Work     Y          SINGLE MAIN       4               1     ML     608
## 38   Commuter     Y             TRACK #4       4               1   MNCW    8404
## 39       Work     Y             MAIN 1&2       4         11.76   1     RI    7325
## 40   Commuter     Y                 ONE        4        000000   1    AMT      59
## 41  Passenger     Y          SINGLE MAIN       4        055.23   1   BNSF    2761
## 42   Commuter     Y             TRACK #0       1               1     MU     155
## 43   Commuter     Y          CP 39 XOVER       4        000000   1    AMT      94
## 44   Commuter     Y         MAIN CRS OVR       1        027.00   1   METX     131
## 45   Commuter     Y                MAIN       4        000000   1    AMT    1223
## 46   Commuter     Y              LINE #2      3               1     LI    9200
## 47     Single     Y                   2       6        000000   1   CDOT    6695
## 48  Passenger     Y          SINGLE MAIN       4        040.70   1   BNSF    4659
## 49  Passenger     Y   LOUISIANA SOUTHERN       2         003.6   1    NSE    5531
## 50  Passenger     Y          SINGLE MAIN       3        042.00   1     UP    4929
## 51   Commuter     Y               SINGLE       4        000000   1    AMT    9643
## 52  Passenger     Y    SINGLE MAIN TRACK       4               1   BNSF    9924
## 53  Passenger     Y      DOTHAN SUB MAIN       3        000014   1   CSXT    7725
## 54      Light     Y               YARD 5       1        000000   2   NJTR    5427
## 55   Commuter     Y                   2       3             .   1   MNCW    8343
## 56   Commuter     Y           NO.#1 MAIN       4        000000   1    AMT    2522
## 57   Commuter     Y                   2       4        000000   1    AMT      84
## 58  Passenger     Y          SINGLE MAIN       4        035.00   1     UP    9690
## 59  Passenger     Y          SINGLE MAIN       3        008.00   1     UP    7223
## 60   Commuter     Y                MAIN       4        000000   1    AMT     163
## 61   Commuter     Y               SINGLE       4        000000   1    AMT     148
## 62   Commuter     Y                MAIN       4        000000   1    ATK      99
## 63   Commuter     Y                MAIN       3        000000   1    AMT      69
## 64   Commuter     Y                MAIN       4        000000   1    AMT    6952
## 65   Commuter     Y                MAIN       4        000000   1    AMT      54
```

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## 66   Commuter     Y           MAIN TRACK       4   000000      1    AMT      97
## 67  Passenger     Y                 MAIN       4     0.00      1   BNSF    6835
## 68  Passenger     Y              MAINLINE      3   000008      1   CSXT     471
## 69       Work     Y         MAIN TRACK #1      4   130.00      1   NIRC     120
## 70       Work     Y 2 MAIN/TRK X-OVER SW       1    11.76      1   NIRC    8570
## 71   Commuter     Y         SOUTH CHICAGO      2              1    MED    1533
## 72  Passenger     Y     AVONDALE MILLS CO      1              4    NSE    6653
## 73       Work     Y               1 MAIN       4              1     ML     625
## 74       Yard     Y           SINGLE MAIN      4              1   SNJX    3501
## 75  Passenger     Y           SINGLE MAIN      2   039.00      1   DRGW   15364
## 76   Commuter     Y    SINGLE MAIN TRACK       2              1   HVRR    5340
## 77   Commuter     Y           GLIDDEN SUB      4   000000      1    AMT      40
## 78   Commuter     Y                 MAIN       4   000000      1    AMT     158
## 79   Commuter     Y                 MAIN       3   000000      1    AMT     156
## 80   Commuter     Y            MAIN 1 & 2      2   000000      1    AMT   35005
## 81   Commuter     Y                 MAIN       4   000000      1    AMT       9
## 82  Passenger     Y     SINGLE MAIN LINE       4   035.00      1     UP    7184
## 83       Work     Y             NO 3 MAIN      4   016.00      1   METX     178
## 84       Work     Y                   2        4   000000      1      V     601
## 85     Single     Y             NO 1 MAIN      3   010.00      1    RMS      54
## 86  Passenger     Y           SINGLE MAIN      4   005.00      1     UP    1977
## 87   Commuter     Y                SINGLE      3              1   MBTA    1710
## 88       Work     Y                SINGLE      3    000.5     1     MU     407
## 89  Passenger     Y           SINGLE MAIN      4   030.00      1     UP    8087
## 90   Commuter     Y                 MAIN       2     1.10      1   SLRG     456
## 91  Passenger     Y           NS MAINLINE      4    006.3      1     NS    8929
## 92      Maint     Y           #2 MAINLINE      4   000097      1   CSXT    4798
## 93  Passenger     Y           SINGLE MAIN      4     0.00      1   BNSF    4470
## 94  Passenger     Y                MAIN 1      5    89.02      1   BNSF    1086
## 95   Commuter     Y                 MAIN       4   000000      1    AMT      42
## 96   Commuter     Y                 MAIN       4   000000      1    AMT      20
## 97  Passenger     Y           SINGLE MAIN      4   053.68      1   GATX   53754
## 98  Passenger     Y           SINGLE MAIN      4   046.00      1     UP    2860
## 99   Commuter     Y         #1 MAIN TRACK      4     2.96      1   NIRC     119
## 100  Commuter     Y            MAIN NO.#1      4   000000      1    AMT     465
## 101  Commuter     Y           SINGLE MAIN      4   000000      1    AMT   90218
## 102 Passenger     Y    SINGLE MAIN TRACK       2    004.5      1   TOED      16
## 103      Work     Y          SINGLE TRACK      3              1   MNCW    1697
## 104  Commuter     Y                SINGLE      3              1     MU     204
## 105  Commuter     Y                SINGLE      3              1     MU     325
## 106  Commuter     Y                   2        3              1   MBTA    1644
## 107 Passenger     Y ABC ROAD BRIDGE CROS       1              1     UP    8487
## 108 Passenger     Y           SINGLE MAIN      4    40.00     1   ACFX   27961
## 109 Passenger     Y           SINGLE MAIN      5   050.44      1     UP    2453
## 110     Maint     Y             NO 2 MAIN      4    223.0     1     UP    6635
## 111  Commuter     Y         GUASTI SIDING      3   000000      3    AMT      87
## 112  Commuter     Y           SINGLE MAIN      5   000000      1    AMT    2011
## 113  Commuter     Y                 # 2        5   000000      1    AMT    2001
## 114  Commuter     Y                   2        3   000030      1    AMT       8
## 115 Passenger     Y     SINGLE MAIN LINE       2     1.19      1    ATW  122033
## 116  Commuter     Y              #1 MAIN       4   000000      1    ATK      63
## 117  Commuter     Y    SINGLE MAIN TRACK       4   000000      1    AMT     191
## 118  Commuter     Y                 MAIN       5   000000      1    AMT    2012
## 119  Commuter     Y                 # 1        4   000000      1    AMT     202
```

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## 120      Work     Y            AMTRAK #4       2             1   NIRC     101
## 121      Yard     Y                   25       1   000000    1    AMT    1735
## 122  Commuter     Y          MAIN/SINGLE       4   000008    1    AMT     173
## 123  Commuter     Y                 MAIN       4   000000    1    AMT     148
## 124  Commuter     Y    SINGLE MAIN TRACK       4   000000    1    AMT       7
## 125  Commuter     Y           MAIN TRACK       4   000000    1    AMT     157
## 126 Passenger     Y           NO. 1 MAIN       4    024.7    1     UP    9657
## 127      Work     Y                 MAIN       3    10.50    1     ML     855
## 128  Commuter     Y               2 MAIN       4   000000    1    AMT    6362
## 129  Commuter     Y                    1       8             1   MBTA    1030
## 130      Work     Y    ACE STATION TRACK       1             3   ACEX    3309
## 131 Passenger     Y                 MAIN       4   000022    1   CSXT    7911
## 132     Other     Y          SINGLE MAIN       4   000027    1     MW    3923
## 133  Commuter     Y                 MT 2       1             1    AMT   33019
## 134  Commuter     Y    SINGLE MAIN TRACK       4             1    AMT      32
## 135  Commuter     Y    SINGLE MAIN TRACK       4             1     NC    1755
## 136 Passenger     Y    SINGLE MAIN TRACK       3      2.7    1    SOU  139873
## 137  Commuter     Y                    1       1             1     MU     371
## 138      Work     Y         SINGLE TRACK       3   000000    1   NJTR    5025
## 139  Commuter     Y    SINGLE MAIN TRACK       3             1    AMT     171
## 140  Commuter     Y    SINGLE MAIN TRACK       4             1     NC    1755
## 141  Commuter     Y          SINGLE MAIN       4             1    LVR    3510
## 142  Commuter     Y                   #1       3             1     MU     257
## 143  Commuter     Y                 MAIN       4             1    AMT     115
## 144 Passenger     Y          SINGLE MAIN       4     9.92    1   CITX  224226
## 145 Passenger     Y          SINGLE MAIN       4     59.2    1     UP    6469
## 146  Commuter     Y                 MAIN       4             1    AMT     181
## 147  Commuter     Y               MAIN 2       4             1    AMT    2011
## 148  Commuter     Y         MAIN TRACK 1       4             1    AMT     205
## 149  Commuter     Y       # 2 MAIN TRACK       5             1    AMT     169
## 150  Commuter     Y                 MAIN       4             1    AMT      60
## 151  Commuter     Y             #2 SOUTH       3             1    AMT     116
## 152  Commuter     Y                    2       4             1    ATK  034116
## 153 Passenger     Y          SINGLE MAIN       4     22.3    1     UP  007912
## 154     Light     Y                K-INT       1             2   MACZ  007750
## 155  Commuter     Y     MICHIGAN LINE #1       4             1    AMT  000028
## 156  Commuter     Y                 MAIN       4             1   RNCX  001792
## 157  Commuter     Y    SINGLE MAIN TRACK       4             1    AMT  008302
## 158  Commuter     Y    SINGLE MAIN TRACK       4             1    AMT  000004
## 159  Commuter     Y    SINGLE MAIN TRACK       5   000014    1    AMT  000821
## 160  Commuter     Y                  ONE       4             1    AMT  000173
## 161  Commuter     Y         MAIN TRACK 2       4             1    AMT  000021
## 162      Work     Y                 MAIN       4     47.9    1     ML  000868
## 163      Work     Y         MAIN 2 TRACK       1        0    1   METX     193
## 164  Commuter     Y    SINGLE MAIN TRACK       4             1    AMT     121
## 165  Commuter     Y                    2       3             1   PATH     835
## 166  Commuter     Y    SINGLE MAIN TRACK       4             1    AMT      77
## 167     Other     Y    SINGLE MAIN TRACK       5             1    AMT    8305
## 168  Commuter     Y         MAIN TRACK 2       6             1    AMT     911
## 169  Commuter     Y    SINGLE MAIN TRACK       4             1    AMT     187
## 170     Other     Y     MAIN TRACK NO. 2       4             1   <NA>    8553
## 171  Commuter     Y           MAIN TRACK       4             1    AMT     174
## 172 Passenger     Y          SINGLE MAIN       4     11.0    1     UP    8242
## 173     Other     Y               MAIN 2       4             1   SFRV     507
```

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## 174      Work     Y           NO. 3 MAIN      4        9      1   METX    8441
## 175  Commuter     Y    SINGLE MAIN TRACK      4               1    AMT   39013
## 176      Work     Y           MAINLINE 1      4               1     LI    7341
## 177     Other     Y         MAIN TRACK 2      4               1    AMT   90253
## 178  Commuter     Y          SINGLE MAIN      4               1    AMT     128
## 179  Commuter     Y          SINGLE MAIN      4               1    AMT      94
## 180      Work     Y                 MAIN      4      2.7      1     ML     881
## 181 Passenger     Y    SINGLE MAIN TRACK      1     0006      1   ECUX  881493
## 182     Other     Y            BLUE LINE      3        0      1     AA     105
## 183  Commuter     Y    SINGLE MAIN TRACK      5               1    AMT     456
## 184  Commuter     Y                 YARD      4               2    AMT      31
## 185  Commuter     Y    SINGLE MAIN TRACK      5               1    AMT      60
## 186     Maint     Y                 S&I      1               2    AMT      71
## 187  Commuter     Y         MAIN TRACK 1      4               1    AMT      54
## 188 Passenger     Y          SINGLE MAIN      5     33.9      1     UP    7877
## 189     Other     Y    SINGLE MAIN TRACK      4        3      1   CMTY     103
## 190  Commuter     Y                  #3      1               1     MU     178
## 191  Commuter     Y    SINGLE MAIN TRACK      4               1    AMT    2005
## 192  Commuter     Y                   2      4               1    AMT      69
## 193      Yard     Y              E TRACK      1               4   TILX  316860
## 194     Other     Y                 MAIN      4               1    AMT    8030
## 195  Commuter     Y         MAIN TRACK 2      4               1    AMT    1893
## 196     Other     Y         MAIN TRACK 2      4               1   SDNX    2304
## 197 Passenger     Y    SINGLE MAIN TRACK      5     0.00      1   BNSF    6421
## 198  Commuter     Y          SINGLE MAIN      2               1    WVC     201
## 199     Other     Y              TRACK 4      4    11.64      1   MNCW    9309
## 200     Maint     Y          SINGLE MAIN      5     47.6      1     UP    8232
## 201     Other     Y         SINGLE TRACK      3   000000      1   NJTR    6001
## 202     Other     Y               SINGLE      4               1   SNJX    3506
## 203      Work     Y             TRACK #1      3   000000      1   NJTR    4020
## 204     Other     Y               1 MAIN      4      2.4      1     ML     651
## 205 Passenger     Y          SINGLE MAIN      5     55.2      1   CSXT    8199
## 206  Commuter     Y    SINGLE MAIN TRACK      4               1    AMT      90
## 207 Passenger     Y          SINGLE MAIN      4   0035.7      1   CSXT    3098
## 208     Maint     Y         MAIN 1 TRACK      5    52.87      1   BNSF    5630
## 209  Commuter     Y    SINGLE MAIN TRACK      4               1    AMT     824
## 210     Other     Y              TRACK 2      2    15.77      1   MNCW    6222
## 211 Passenger     Y           MAIN TRACK      4    108.5      1     UP    5668
## 212 Passenger     Y               MAIN 1      4   0036.2      1   CSXT    5310
## 213  Commuter     Y               MAIN 1      4               1    AMT   62040
## 214  Commuter     Y    SINGLE MAIN TRACK      4               1    AMT     120
## 215  Commuter     Y       WPYR MAIN LINE      2        1      1   LOCO      92
## 216     Other     Y    SINGLE MAIN TRACK      4               1    AMT    9639
## 217     Other     Y         MAIN LINE 2      4      5.9      1   SFRV     507
## 218     Other     Y    SINGLE MAIN TRACK      5               1    AMT   90225
## 219  Commuter     Y    SINGLE MAIN TRACK      4               1    AMT     809
## 220  Commuter     Y    SINGLE MAIN TRACK      3               1    AMT     154
## 221  Commuter     Y    SINGLE MAIN TRACK      4               1    AMT     131
## 222 Passenger     Y          SINGLE MAIN      4   0028.1      1     UP    5183
## 223     Other     Y        MAIN TRACK #1      4    13.9      1   <NA>    8536
## 224  Commuter     Y    SINGLE MAIN TRACK      4               1    AMT    8023
## 225  Commuter     Y              TRACK 2      8               1    AMT     925
## 226  Commuter     Y          SINGLE MAIN      4   830000      1    AMT     161
## 227  Commuter     Y             # 1 MAIN      4               1    AMT     135
```

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## 228  Commuter     Y                MAIN       3              1    AMT     102
## 229  Commuter     Y   DOUBLE-AGS MAIN #2       5              1    AMT      99
## 230 Passenger     Y    SINGLE MAIN TRACK       4    49.71     1   BNSF    8123
## 231  Commuter     Y         MAIN TRACK 2       7              1    ATK     601
## 232     Other     Y              TRACK 2       3     8.58     1   MNCW    4333
## 233     Other     Y               SINGLE       4              1   SNJX    3503
## 234     Other     Y          SINGLE MAIN       4    12.79     1     CN   50300
## 235  Commuter     Y    SINGLE MAIN TRACK       4              1    AMT     823
## 236 Passenger     Y        MAIN TRACK #2       4     16.0     1     UP    8955
## 237     Other     Y          SINGLE MAIN       4     2.92     1     ML     645
## 238 Passenger     Y          SINGLE MAIN       3   0022.6     1   UTLX  901717
## 239  Commuter     Y          SINGLE MAIN       4              1    AMT      66
## 240  Commuter     Y          SINGLE MAIN       3              1    AMT     172
## 241  Commuter     Y    SINGLE MAIN TRACK       4              1    AMT     185
## 242  Commuter     Y          SINGLE MAIN       4              1    AMT      91
## 243  Commuter     Y    SINGLE MAIN TRACK       4              1    AMT     821
## 244 Passenger     Y          SINGLE MAIN       4   0062.5     1   CSXT     922
## 245     Other     Y          SINGLE MAIN       4              1    AMT    8306
## 246      Work     Y                   1        4              1   CFRC    2008
## 247  Commuter     Y          SINGLE MAIN       4   000024     1    AMT     465
## 248  Commuter     Y          SINGLE MAIN       4              1    AMT     194
## 249 Passenger     Y    SINGLE MAIN TRACK       4     0000     1     NS    9279
## 250  Commuter     Y          SINGLE MAIN       4              1    AMT   32109
## 251  Commuter     Y          SINGLE MAIN       3   000049     1    AMT     116
## 252  Commuter     Y          SINGLE MAIN       4   000049     1    AMT     197
## 253     Other     Y                MAIN       4      1.1     1   SNJX    3515
## 254  Commuter     Y         MAIN TRACK 3       6   000009     1    AMT     627
## 255  Commuter     Y          SINGLE MAIN       5              1   CDTX    2004
## 256  Commuter     Y          SINGLE MAIN       4   000001     1    AMT     183
## 257  Commuter     Y          SINGLE MAIN       4              1    AMT      41
## 258     Other     Y          MAIN LINE 2       4      5.9     1   SFRV     510
## 259  Commuter     Y               MAIN 1       5              1    AMT     189
## 260  Commuter     Y               MAIN 1       4   000042     1    AMT     130
## 261     Other     Y         MAIN TRACK 1       4              1    AMT    8312
## 262     Other     Y                MAIN       3     4.96     1    ACE    3309
## 263     Other     Y             TRACK #5       1   000000     1   NJTR    6036
## 264  Commuter     Y          SINGLE MAIN       6              1    AMT      66
## 265  Commuter     Y                MAIN       4              1   WDTX    1402
## 266  Commuter     Y        MAIN TRACK #2       3              1    AMT     467
## 267  Commuter     Y          SINGLE MAIN       4              1    AMT     173
## 268 Passenger     Y              #2 MAIN       3   0070.1     1   FWTX  620111
## 269     Other     Y              TRACK 3       3    15.15     1   MNCW    9281
## 270  Commuter     Y                MAIN       4              1    AMT      19
## 271  Commuter     Y          SINGLE MAIN       4              1    AMT      93
## 272  Commuter     Y          SINGLE MAIN       4              1    AMT     175
## 273  Commuter     Y              6 TRACK       1              1    AMT   25016
## 274  Commuter     Y    SINGLE MAIN TRACK       2   .36143     1   GSMR    2467
## 275 Passenger     Y    SINGLE MAIN TRACK       2     12.2     1     UP    8653
## 276      Work     Y                  #9       1   000000     1   NJTR    7714
## 277      Work     Y            M LADDER       1   000000     1   NJTR    7587
## 278     Other     Y  ATLANTIC TERMINAL 6       1              1     LI    7553
## 279     Other     Y                   1       4              1   RTDC    4038
## 280 Passenger     Y          SINGLE MAIN       4   0024.8     1   CSXT     230
## 281  Commuter     Y          SINGLE MAIN       4              1    AMT      46
```

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## 282  Commuter     Y          SINGLE MAIN       3   000007      1    AMT     145
## 283  Commuter     Y          SINGLE MAIN       4               1    AMT      28
## 284  Commuter     Y             MAIN # 2       3               1    AMT     113
## 285      Work     Y               MAIN 1       5               1    TRE     124
## 286  Commuter     Y                 MAIN       4               1    AMT       6
## 287  Commuter     Y           SILICA STG       1               2    AMT      47
## 288  Commuter     Y          SINGLE MAIN       4   000039      1    AMT      28
## 289     Other     Y              #2 MAIN       1   000028      1    AMT   61044
## 290 Passenger     Y    SINGLE MAIN TRACK       3   0020.7      1   CSXT     362
## 291  Commuter     Y               MAIN 2       4               1    AMT    4611
## 292     Other     Y               MAIN 2       6               1    AMT    9650
## 293     Other     Y                   #4       5   000000      1   NJTR    7003
## 294     Other     Y             TRACK #2       4   000000      1   NJTR    6033
## 295  Commuter     Y          SINGLE MAIN       4               1    AMT      79
## 296  Commuter     Y               MAIN 1       5   000058      1    AMT      78
## 297  Commuter     Y          SINGLE MAIN       3               1    AMT      20
## 298  Commuter     Y          SINGLE MAIN       4               1    AMT      35
## 299  Commuter     Y               MAIN 2       6               1    AMT     126
## 300  Commuter     Y               MAIN 1       4               1    AMT      24
## 301     Other     Y             MAINLINE       4   1.2 MG      1   SMRT     116
## 302     Other     Y              TRACK 1       4     3.84      1   MNCW    6308
## 303  Commuter     Y               MAIN 1       4               1    AMT      29
## 304     Other     Y         MAIN TRACK 1       4               1   RTDC    4056
## 305  Commuter     Y          SINGLE MAIN       4               1    AMT      32
## 306 Passenger     Y    SINGLE MAIN TRACK       4     0013      1   CBFX  490026
## 307     Other     Y             TRACK 01       4      9.2      1     LI    7425
## 308  Commuter     Y               MAIN 1       4               1   IDTX    4616
##     POSITON1 LOADED1 RRCAR2 CARNBR2 POSITON2 LOADED2 HEADEND1 MIDMAN1 MIDREM1
## 1          1                    NA        0                 2       0       0
## 2          1                    NA        0                 2       0       0
## 3          1                    NA        0                 1       0       0
## 4          1       N            NA        0                 0       0       0
## 5          1                    NA        0                 2       0       0
## 6          1                    NA        0                 2       0       0
## 7          1       N            NA        0                 2       0       0
## 8          1                    NA        0                 2       0       0
## 9          1                    NA        0                 2       0       0
## 10         1       Y            NA        0                 1       0       0
## 11         1                    NA        0                 1       0       0
## 12         1                    NA        0                 1       0       0
## 13         7       Y            NA        0                 1       0       0
## 14         6       Y            NA        0                 2       0       0
## 15         1                    NA        0                 4       0       0
## 16         1                    NA        0                 3       0       0
## 17         1                    NA        0                 2       0       0
## 18         3       Y            NA        0                 2       0       0
## 19         1                    NA        0                 1       0       0
## 20        10       Y            NA        0                 1       0       0
## 21         4       Y            NA        0                 0       0       0
## 22         1                    NA        0                 1       0       0
## 23         1                    NA        0                 2       0       0
## 24         1       N            NA        0                 2       0       0
## 25         1                    NA        0                 1       0       0
## 26         1       Y            NA        0                 1       0       0
```

```
## 27      5    Y           NA     0           2     0     0
## 28      1                NA     0           2     0     0
## 29      1    Y           NA     0           0     0     0
## 30      1    Y           NA     0           0     0     0
## 31      1                NA     0           1     0     0
## 32      1                NA     0           1     0     0
## 33      1                NA     0           1     0     0
## 34      1                NA     0           3     0     0
## 35      1    Y           NA     0           0     0     0
## 36      6    Y NJTR    1368     6    Y      1     0     4
## 37      1    Y           NA     0           0     0     0
## 38      1    N           NA     0           0     0     0
## 39      3    Y           NA     0           2     0     0
## 40      1                NA     0           2     0     0
## 41      1                NA     0           2     0     0
## 42      1    N           NA     0           1     9     0
## 43      1                NA     0           4     0     0
## 44      1    N           NA     0           1     0     0
## 45      2    Y           NA     0           1     0     0
## 46      8    Y           NA     0           1     0     0
## 47      1                NA     0           1     0     0
## 48      1                NA     0           3     0     0
## 49      1                NA     0           1     0     0
## 50      1    N           NA     0           4     0     0
## 51      1    Y           NA     0           1     0     0
## 52      1                NA     0           2     0     0
## 53      1    Y           NA     0           2     0     0
## 54      4    N           NA     0           0     0     0
## 55      1    Y           NA     0           1     0     0
## 56     12    Y           NA     0           2     0     0
## 57      1                NA     0           1     0     0
## 58      1    N           NA     0           2     0     0
## 59      1    N           NA     0           3     0     0
## 60      1                NA     0           1     0     0
## 61      1                NA     0           2     0     0
## 62      1                NA     0           3     0     0
## 63      1                NA     0           1     0     0
## 64      1    Y           NA     0           0     0     0
## 65      1                NA     0           1     0     0
## 66      1                NA     0           2     0     0
## 67      1                NA     0           3     0     0
## 68      1    Y           NA     0           2     0     0
## 69      1    N           NA     0           1     0     0
## 70      1    N           NA     0           0     0     0
## 71      1    Y           NA     0           4     0     0
## 72      1                NA     0           2     0     0
## 73      1    Y           NA     0           0     0     0
## 74      1    Y           NA     0           0     0     0
## 75     55    N           NA     0           2     0     0
## 76      9    N           NA     0           1     0     0
## 77      1                NA     0           2     0     0
## 78      1                NA     0           2     0     0
## 79      1                NA     0           1     0     0
## 80      5    Y           NA     0           2     0     0
```

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##  81      1                    NA      0              1      0      0
##  82      1                    NA      0              2      0      0
##  83      1    N               NA      0              1      0      0
##  84      4    Y               NA      0              0      0      0
##  85      3    N               NA      0              1      0      0
##  86      1    N               NA      0              2      0      0
##  87      1    Y               NA      0              0      0      0
##  88      1    Y               NA      0              4      0      0
##  89      1    N               NA      0              2      0      0
##  90      1    Y               NA      0              1      0      0
##  91      1                    NA      0              1      0      0
##  92      1    N               NA      0              2      0      0
##  93      1                    NA      0              4      0      0
##  94      1                    NA      0              3      0      0
##  95      1                    NA      0              2      0      0
##  96      1                    NA      0              2      0      0
##  97      6    N    GATX    53754      6    N         2      0      0
##  98      2    N               NA      0              3      0      0
##  99      1    N               NA      0              1      0      0
## 100      1                    NA      0              1      0      0
## 101      1    Y               NA      0              0      0      0
## 102      1                    NA      0              3      0      0
## 103      1    N               NA      0              0      0      0
## 104      1    Y               NA      0              1      1      0
## 105      1    Y               NA      0              1      0      0
## 106      1    Y               NA      0              0      0      0
## 107      1    N               NA      0              2      0      0
## 108     65    Y    ACFX    27961     65    Y         2      0      0
## 109      1    N               NA      0              2      0      0
## 110      1    N               NA      0              1      0      0
## 111      2                    NA      0              2      0      0
## 112      1                    NA      0              1      0      0
## 113      1                    NA      0              1      0      0
## 114      1                    NA      0              1      0      0
## 115      8    Y               NA      0              4      0      0
## 116      1                    NA      0              2      0      0
## 117      1                    NA      0              2      0      0
## 118      1                    NA      0              1      0      0
## 119      1                    NA      0              2      0      0
## 120      1    Y               NA      0              2      0      0
## 121      0    Y               NA      0              0      0      0
## 122      1                    NA      0              1      0      0
## 123      1                    NA      0              1      0      0
## 124      1                    NA      0              1      0      0
## 125      1                    NA      0              2      0      0
## 126      1                    NA      0              2      0      0
## 127      1    Y               NA      0              1      0      0
## 128      3    Y               NA      0              0      0      0
## 129      1    N               NA      0              1      0      0
## 130      6    Y               NA      0              1      0      0
## 131      1    N               NA      0              2      0      0
## 132      1    N               NA      0              0      0      0
## 133      6    Y     AMT   33019      6    Y         1      0      0
## 134      1                    NA      0              1      0      0
```

```
## 135      1                  NA      0              1      0      0
## 136      1       N          NA      0              2      0      0
## 137      3       Y          NA      0              1      1      0
## 138      1       Y          NA      0              0      0      0
## 139      1       N          NA      0              1      0      0
## 140      1                  NA      0              1      0      0
## 141      1       Y          NA      0              1      0      0
## 142      1       Y     MU  257      1       Y      1      0      2
## 143      1                  NA      0              1      0      0
## 144     59       Y          NA      0              2      0      0
## 145      1                  NA      0              2      0      0
## 146      1                  NA      0              2      0      0
## 147      1                  NA      0              1      0      0
## 148      1                  NA      0              2      0      0
## 149      1                  NA      0              2      0      0
## 150      1                  NA      0              2      0      0
## 151      1                  NA      0              3      0      0
## 152      5       Y          NA      0              1      0      0
## 153      1                  NA      0              2      0      0
## 154      8       N          NA      0              0      0      0
## 155      1                  NA      0              1      0      0
## 156      1                  NA      0              1      0      0
## 157      1       Y          NA      0              0      0      0
## 158      1                  NA      0              2      0      0
## 159      1                  NA      0              2      0      0
## 160      1                  NA      0              1      0      0
## 161      2                  NA      0              2      0      0
## 162      1       Y          NA      0              1      0      0
## 163      1                  NA      0              1      0      0
## 164      1                  NA      0              1      0      0
## 165      1       Y          NA      0              7      0      0
## 166      1                  NA      0              1      0      0
## 167      1       Y          NA      0              0      0      0
## 168      1                  NA      0              1      0      0
## 169      1                  NA      0              2      0      0
## 170      1       Y          NA      0              0      0      0
## 171      1                  NA      0              2      0      0
## 172      1                  NA      0              4      0      0
## 173      1       Y          NA      0              0      0      0
## 174      1       Y          NA      0              0      0      0
## 175      4       Y          NA      0              2      0      0
## 176      1       Y          NA      0              1      0      0
## 177      1       Y          NA      0              0      0      0
## 178      1                  NA      0              1      0      0
## 179      1                  NA      0              1      0      0
## 180      1                  NA      0              1      0      0
## 181      8       Y          NA      0              2      0      0
## 182      1       Y   <NA>  105      0              0      0      0
## 183      1                  NA      0              1      0      0
## 184      1                  NA      0              1      0      0
## 185      1                  NA      0              2      0      0
## 186      2            AMT   71      2              2      0      0
## 187      1                  NA      0              1      0      0
## 188      1                  NA      0              3      0      0
```

```
## 189       1       Y            NA       0              0       0       0
## 190       1       Y            NA       0              1       2       0
## 191       1                    NA       0              1       0       0
## 192       1                    NA       0              1       0       0
## 193       1       N            NA       0              0       0       0
## 194       3       Y            NA       0              0       0       0
## 195       1                    NA       0              1       0       0
## 196       1       Y            NA       0              0       0       0
## 197       1                    NA       0              3       0       0
## 198       4       Y            NA       0              2       0       0
## 199       2       Y            NA       0              0       0       0
## 200       1                    NA       0              5       0       0
## 201       1       Y            NA       0              0       0       0
## 202       1       Y            NA       0              0       0       0
## 203       1       N            NA       0              1       0       0
## 204       1       Y            NA       0              0       0       0
## 205       1                    NA       0              2       0       0
## 206       1                    NA       0              3       0       0
## 207       1       N            NA       0              2       0       0
## 208       1                    NA       0              2       0       0
## 209       1                    NA       0              2       0       0
## 210       1       Y            NA       0              0       0       0
## 211       1                    NA       0              2       0       0
## 212       1       N            NA       0              2       0       0
## 213       4       Y            NA       0              2       0       0
## 214       1                    NA       0              2       0       0
## 215       1       Y            NA       0              2       0       0
## 216       1       Y            NA       0              0       0       0
## 217       1       Y            NA       0              0       0       0
## 218       1       Y            NA       0              0       0       0
## 219       1                    NA       0              1       0       0
## 220       1                    NA       0              1       0       0
## 221       1                    NA       0              1       0       0
## 222       1       N            NA       0              2       0       0
## 223       1       Y            NA       0              1       0       0
## 224       2       Y            NA       0              1       0       0
## 225       1       Y            NA       0              1       0       0
## 226       1                    NA       0              2       0       0
## 227       1                    NA       0              1       0       0
## 228       1                    NA       0              1       0       0
## 229       1                    NA       0              2       0       0
## 230       1                    NA       0              4       0       0
## 231       1                    NA       0              1       0       0
## 232       1       Y            NA       0              0       0       0
## 233       1       Y            NA       0              0       0       0
## 234       1       N            NA       0              0       0       0
## 235       1                    NA       0              1       0       0
## 236       1                    NA       0              4       0       0
## 237       1       Y            NA       0              0       0       0
## 238      39       Y   UTLX 901717      39       Y      2       0       0
## 239       1                    NA       0              1       0       0
## 240       1                    NA       0              1       0       0
## 241       1                    NA       0              1       0       0
## 242       1                    NA       0              2       0       0
```

```
## 243      1                  NA       0            1       0       0
## 244      1       N          NA       0            2       0       0
## 245      1       Y          NA       0            0       0       0
## 246      1       Y    CFRC 2008      1       Y    1       0       0
## 247      1                  NA       0            1       0       0
## 248      1                  NA       0            1       0       0
## 249      1       N          NA       0            1       0       0
## 250      5       Y          NA       0            2       0       0
## 251      1                  NA       0            1       0       0
## 252      1                  NA       0            1       0       0
## 253      1       Y          NA       0            0       0       0
## 254      1                  NA       0            1       0       0
## 255      1                  NA       0            1       0       0
## 256      1                  NA       0            2       0       0
## 257      1                  NA       0            1       0       0
## 258      1       Y          NA       0            0       0       0
## 259      1                  NA       0            1       0       0
## 260      1                  NA       0            1       0       0
## 261      1       Y          NA       0            0       0       0
## 262      1       Y          NA       0            0       0       0
## 263      1       Y          NA       0            0       0       0
## 264      1                  NA       0            1       0       0
## 265      1                  NA       0            1       0       0
## 266      1                  NA       0            1       0       0
## 267      1                  NA       0            1       0       0
## 268     35       N          NA       0            5       0       0
## 269      3       Y          NA       0            0       0       0
## 270      1                  NA       0            1       0       0
## 271      1                  NA       0            1       0       0
## 272      1                  NA       0            2       0       0
## 273      7       Y     AMT 25016      7       Y    2       0       0
## 274      1       Y          NA       0            2       0       0
## 275      1                  NA       0            3       0       0
## 276      5       Y          NA       0            1       0       0
## 277      7       Y          NA       0            1       0       0
## 278      1       Y          NA       0            0       0       0
## 279      1       Y          NA       0            0       0       0
## 280      1       N          NA       0       N    3       0       0
## 281      1                  NA       0            1       0       0
## 282      1                  NA       0            1       0       0
## 283      1                  NA       0            1       0       0
## 284      1                  NA       0            2       0       0
## 285      1       N          NA       0            1       0       0
## 286      1                  NA       0            1       0       0
## 287      1                  NA       0            1       0       0
## 288      1                  NA       0            1       0       0
## 289      1       Y          NA       0            0       0       0
## 290      1       N    CSXT  362      1       N    2       0       0
## 291      1                  NA       0            1       0       0
## 292      1       Y          NA       0            0       0       0
## 293      1       Y          NA       0            0       0       0
## 294      1       Y          NA       0            0       0       0
## 295      1                  NA       0            2       0       0
## 296      1                  NA       0            2       0       0
```

```
## 297        1                    NA        0                2       0       0
## 298        1                    NA        0                1       0       0
## 299        1                    NA        0                2       0       0
## 300        1                    NA        0                2       0       0
## 301        2       Y   <NA>     NA        0                0       0       0
## 302        1       Y            NA        0                0       0       0
## 303        1                    NA        0                1       0       0
## 304        1       Y            NA        0                0       0       0
## 305        1                    NA        0                1       0       0
## 306        3       N            NA        0                2       0       0
## 307        1       Y            NA        0                0       0       0
## 308        1                    NA        0                1       0       0
##     RMAN1 RREM1 HEADEND2 MIDMAN2 MIDREM2 RMAN2 RREM2 LOADF1 LOADP1 EMPTYF1
## 1       0     0        2       0       0     0     0       0      16       0
## 2       0     0        1       0       0     0     0       0       5       0
## 3       0     0        0       0       0     0     0       0       5       0
## 4       0     0        0       0       0     0     0       0       0       0
## 5       0     0        2       0       0     0     0       0      15       0
## 6       0     0        2       0       0     0     0       4       7       1
## 7       0     0        0       0       0     0     0       0       0      53
## 8       0     0        0       0       0     0     0       0      15       0
## 9       0     0        2       0       0     0     0       0      19       0
## 10      0     0        1       0       0     0     0       0       4       0
## 11      0     0        0       0       0     0     0       0       5       0
## 12      0     0        0       0       0     0     0       3       0       0
## 13      0     0        0       0       0     0     0       0       7       1
## 14      0     0        0       0       0     0     0      86       0      26
## 15      0     0        0       0       0     0     0      63       0       0
## 16      0     0        1       0       0     0     0       0      13       0
## 17      0     0        0       0       0     0     0      32       0      16
## 18      0     0        0       0       0     0     0       0      13       0
## 19      0     0        0       0       0     0     0       0      12       0
## 20      0     0        0       0       0     0     0       0       8       0
## 21      0     1        0       0       0     0     0       0       3       0
## 22      0     0        1       0       0     0     0       0       6       0
## 23      0     0        1       0       0     0     0       0       8       3
## 24      0     0        0       0       0     0     0      23       0      79
## 25      0     0        1       0       0     0     0       0      10       0
## 26      0     0        1       0       0     0     0       0       3       0
## 27      0     0        0       0       0     0     0       0      40       0
## 28      0     0        0       0       0     0     0       0      14       0
## 29      0     0        0       0       0     0     0       0       0       1
## 30      0     1        0       0       0     0     0       0       4       0
## 31      0     0        1       0       0     0     0       0      10       0
## 32      0     1        1       0       0     0     0       0       0       0
## 33      0     0        0       0       0     0     0       0       8       0
## 34      0     0        0       0       0     0     0      57       0       1
## 35      0     0        0       0       0     0     0       0       7       0
## 36      0     1        0       0       1     0     0       0       6       0
## 37      0     1        0       0       0     0     1       0       4       0
## 38      1     0        0       0       0     0     0       0       0       0
## 39      0     0        2       0       0     0     0       0       4       0
## 40      0     0        0       0       0     0     0       0      10       0
## 41      0     0        0       0       0     0     0       0       0      29
```

```
## 42     1     0     1     2     0     0     0     0     0     0
## 43     0     0     4     0     0     0     0     0    28     0
## 44     0     0     0     0     0     0     0     0     5     0
## 45     0     0     1     0     0     0     0     0     9     0
## 46     0     0     0     0     0     0     0     0     7     0
## 47     0     0     0     0     0     0     0     0     0     0
## 48     0     0     0     0     0     0     0     0     0    42
## 49     0     0     0     0     0     0     0     0     0     5
## 50     0     0     4     0     0     0     0    74     0     0
## 51     1     0     0     0     0     0     0     0     2     0
## 52     0     1     0     0     0     0     0   124     0     0
## 53     0     0     0     0     0     0     0    21     0    49
## 54     1     0     0     0     0     0     0     0     0     0
## 55     0     0     0     0     0     0     0     0     5     0
## 56     0     0     0     0     0     0     0     0    15     0
## 57     0     0     0     0     0     0     0     0    10     0
## 58     0     0     2     0     0     0     0    64     0     0
## 59     0     0     3     0     0     0     0    63     0     0
## 60     0     0     1     0     0     0     0     0     4     0
## 61     0     0     0     0     0     0     0     0     9     0
## 62     0     0     3     0     0     0     0     0     9     0
## 63     0     0     1     0     0     0     0     0     7     0
## 64     0     1     0     0     0     0     0     0     5     0
## 65     0     0     1     0     0     0     0     0     6     0
## 66     0     0     1     0     0     0     0     0    11     0
## 67     0     0     0     0     0     0     0    22     0     0
## 68     0     0     0     0     0     0     0     0     0    60
## 69     0     0     0     0     0     0     0     0     6     0
## 70     0     1     0     0     0     0     1     0     3     0
## 71     0     0     0     0     0     0     0     0     4     0
## 72     0     0     2     0     0     0     0    25     0    17
## 73     1     0     0     0     0     1     0     0     3     0
## 74     0     0     0     0     0     0     0     0     2     0
## 75     0     0     0     0     0     0     0    13     0    40
## 76     0     0     0     0     0     0     0     6     0     1
## 77     0     0     0     0     0     0     0     0     6     0
## 78     0     0     1     0     0     0     0     0     9     0
## 79     0     0     1     0     0     0     0     0     4     0
## 80     0     0     0     0     0     0     0     0     7     0
## 81     0     0     0     0     0     0     0     0    11     0
## 82     0     1     0     0     0     0     0     0     0   105
## 83     0     0     0     0     0     0     0     0     6     0
## 84     1     0     0     0     0     1     0     0     6     0
## 85     1     0     0     0     0     0     0     9     0     0
## 86     0     0     2     0     0     0     0    48     0     0
## 87     1     0     0     0     0     0     0     0     7     0
## 88     0     0     1     0     0     0     0     0     0     0
## 89     0     0     0     0     0     0     0     0     0   102
## 90     0     0     0     0     0     0     0     0     2     0
## 91     0     0     1     0     0     0     0     8     0     2
## 92     0     0     0     0     0     0     0     0     0     0
## 93     0     0     0     0     0     0     0     0     0    91
## 94     0     0     0     0     0     0     0    72     0     0
## 95     0     0     0     0     0     0     0     0     7     0
```

```
## 96      0     0       0       0       0     0     0     0     6       0
## 97      0     0       0       0       0     0     0    27     0      48
## 98      0     0       2       0       0     0     0    55     0      28
## 99      0     0       1       0       0     0     0     0     3       0
## 100     0     0       0       0       0     0     0     0    12       0
## 101     1     0       0       0       0     0     0     0     5       0
## 102     0     0       3       0       0     0     0    21     0       0
## 103     1     0       0       0       0     1     0     0     2       0
## 104     1     0       0       0       0     0     0     0     0       0
## 105     1     0       0       0       0     0     0     0     0       0
## 106     1     0       0       0       0     0     0     0     6       0
## 107     0     0       2       0       0     0     0    14     1       0
## 108     0     0       0       0       0     0     0    64     0      22
## 109     0     0       0       0       0     0     0    39     0       0
## 110     0     0       0       0       0     0     0     0     0       0
## 111     0     0       1       0       0     0     0     0     8       0
## 112     0     0       0       0       0     0     0     0     4       0
## 113     0     0       0       0       0     0     0     0     5       0
## 114     0     0       1       0       0     0     0     0     3       0
## 115     0     0       0       0       0     0     0    54     0       4
## 116     0     0       0       0       0     0     0     0     9       0
## 117     0     0       2       0       0     0     0     0     9       0
## 118     0     0       1       0       0     0     0     0     4       0
## 119     0     0       0       0       0     0     0     0     9       0
## 120     0     0       0       0       0     0     0     0     1       0
## 121     0     0       0       0       0     0     0     0    10       0
## 122     0     0       1       0       0     0     0     0     3       0
## 123     0     0       0       0       0     0     0     0     4       0
## 124     0     0       1       0       0     0     0     0     6       0
## 125     0     0       0       0       0     0     0     0     6       0
## 126     0     0       0       0       0     0     0    16     0      21
## 127     1     0       1       0       0     0     0     0     2       0
## 128     1     0       0       0       0     0     0     0     4       0
## 129     0     0       0       0       0     0     0     0     6       0
## 130     0     0       0       0       0     0     0     0     5       0
## 131     0     0       2       0       0     0     0    26     0       0
## 132     0     0       0       0       0     0     0     0     0       1
## 133     1     0       0       0       0     0     0     0     8       0
## 134     0     0       1       0       0     0     0     0     4       0
## 135     0     0       0       0       0     0     0     0     5       0
## 136     0     0       0       0       0     0     0     3     0       2
## 137     1     0       0       0       0     0     0     0     0       0
## 138     1     0       0       0       0     0     0     0     4       0
## 139     1     0       0       0       0     0     0     0     4       0
## 140     0     0       0       0       0     0     0     0     4       0
## 141     0     0       1       0       0     0     0     0     0       0
## 142     0     1       0       0       0     0     0     0     0       0
## 143     0     0       1       0       0     0     0     0     5       0
## 144     0     0       0       0       0     0     0    78     0      36
## 145     0     0       2       0       0     0     0     0     0     102
## 146     0     0       0       0       0     0     0     0     7       0
## 147     0     0       0       0       0     0     0     0     5       0
## 148     0     0       0       0       0     0     0     0     9       0
## 149     0     0       0       0       0     0     0     0     9       0
```

```
## 150    0    0    0    0    0    0    0    0   12    0
## 151    0    0    0    0    0    0    0    0   44    0
## 152    1    0    0    0    0    0    0    0    7    0
## 153    0    0    0    0    0    0    0   54    0   38
## 154    1    0    0    0    0    0    0    0    0    0
## 155    0    0    0    0    0    0    0    0    7    0
## 156    0    0    1    0    0    0    0    0    3    0
## 157    1    0    0    0    0    0    0    0    5    0
## 158    0    0    0    0    0    0    0    0   10    0
## 159    0    0    0    0    0    0    0    0    7    0
## 160    0    0    0    0    0    0    0    0    5    0
## 161    0    0    1    0    0    0    0    0    5    0
## 162    1    0    0    0    0    0    0    0    4    0
## 163    0    0    0    0    0    0    0    0   11    0
## 164    0    0    0    0    0    0    0    0    6    0
## 165    0    0    1    0    0    0    0    0    0    0
## 166    0    0    0    0    0    0    0    0    4    0
## 167    1    0    0    0    0    0    0    0    4    0
## 168    0    0    0    0    0    0    0    0    9    0
## 169    0    0    2    0    0    0    0    0    9    0
## 170    1    0    0    0    0    0    0    0    2    0
## 171    0    0    2    0    0    0    0    0   10    0
## 172    0    0    4    0    0    0    0   22    0   48
## 173    1    0    0    0    0    0    0    0    3    0
## 174    0    1    0    0    0    0    0    0    6    0
## 175    0    0    0    0    0    0    0    0   10    0
## 176    0    0    0    0    0    0    0    0   11    0
## 177    1    0    0    0    0    0    0    0   13    0
## 178    1    0    1    0    0    0    0    0    6    0
## 179    0    0    0    0    0    0    0    0    7    0
## 180    0    0    0    0    0    0    0    0    4    0
## 181    0    0    0    0    0    0    0   68    0   14
## 182    0    0    0    0    0    0    0    0    2    0
## 183    0    0    0    0    0    0    0    0    6    0
## 184    1    0    1    0    1    0    0    0    4    0
## 185    0    0    0    0    0    0    0    0   10    0
## 186    0    0    0    0    0    0    0    0    0    0
## 187    0    0    0    0    0    0    0    0    7    0
## 188    0    1    0    0    0    0    0   84    0    0
## 189    0    0    0    0    0    0    0    0    1    0
## 190    1    0    0    1    0    1    0    0    0    0
## 191    0    0    0    0    0    0    0    0    5    0
## 192    0    0    0    0    0    0    0    0    7    0
## 193    0    0    0    0    0    0    0    7    0    2
## 194    1    0    0    0    1    0    0    0    4    0
## 195    0    0    0    0    0    0    0    0    4    0
## 196    1    0    0    0    0    0    0    0    5    0
## 197    0    0    0    0    0    0    0    0    0  101
## 198    0    0    0    0    0    0    0    0    3    0
## 199    0    0    0    0    0    0    0    0    8    0
## 200    0    0    1    0    0    0    0    0    0    0
## 201    1    0    0    0    0    0    0    0    5    0
## 202    0    0    0    0    0    0    0    0    1    0
## 203    0    0    0    0    0    0    0    0    6    0
```

```
## 204    1    0    0    0    0    0    0    0    4    0
## 205    0    0    0    0    0    0    0   17    0    0
## 206    0    0    0    0    0    0    0    0   11    0
## 207    0    0    0    0    0    0    0   60    0    8
## 208    0    0    0    0    0    0    0    0    0    0
## 209    0    0    1    0    0    0    0    0    7    0
## 210    1    0    0    0    0    1    0    0    7    0
## 211    0    0    2    0    0    0    0   60    0    0
## 212    0    0    0    0    0    0    0   14    0   31
## 213    0    0    0    0    0    0    0    0    9    0
## 214    0    0    0    0    0    0    0    0    7    0
## 215    0    0    2    0    0    0    0    0   14    0
## 216    1    0    0    0    0    0    0    0    2    0
## 217    1    0    0    0    0    0    0    0    4    0
## 218    1    0    0    0    0    0    0    0    7    0
## 219    0    0    0    0    0    0    0    0    7    0
## 220    0    0    0    0    0    0    0    0    3    0
## 221    0    0    0    0    0    0    0    0    7    0
## 222    0    0    0    0    0    0    0   70    0   33
## 223    0    0    0    0    0    0    0    0    6    0
## 224    0    0    0    0    0    0    0    0    5    0
## 225    0    0    1    0    0    0    0    0    9    0
## 226    0    0    0    0    0    0    0    0    6    0
## 227    0    0    0    0    0    0    0    0    7    0
## 228    0    0    1    0    0    0    0    0    5    0
## 229    0    0    0    0    0    0    0    0    9    0
## 230    0    0    4    0    0    0    0   69    0    0
## 231    0    0    1    0    0    0    0    0    7    0
## 232    0    0    0    0    0    0    0    0    8    0
## 233    0    0    0    0    0    0    0    0    1    0
## 234    0    0    0    0    0    0    0    0    0    1
## 235    0    0    0    0    0    0    0    0    7    0
## 236    0    1    0    0    0    0    0  133    0    0
## 237    1    0    0    0    0    1    0    0    4    0
## 238    0    0    0    0    0    0    0   45    0   12
## 239    0    0    0    0    0    0    0    0    8    0
## 240    0    0    0    0    0    0    0    0    7    0
## 241    0    0    1    0    0    0    0    0    7    0
## 242    0    0    0    0    0    0    0    0   12    0
## 243    0    0    0    0    0    0    0    0    7    0
## 244    0    0    0    0    0    0    0    1    0   62
## 245    1    0    0    0    0    0    0    0    5    0
## 246    0    0    0    0    0    0    0    0    2    0
## 247    0    0    0    0    0    0    0    0   14    0
## 248    0    0    0    0    0    0    0    0    8    0
## 249    0    0    0    0    0    0    0   17    0   13
## 250    0    0    0    0    0    0    0    0   10    0
## 251    0    0    0    0    0    0    0    0    8    0
## 252    0    0    0    0    0    0    0    0    8    0
## 253    0    0    0    0    0    0    0    0    1    0
## 254    0    0    1    0    0    0    0    0   10    0
## 255    0    0    0    0    0    0    0    0    5    0
## 256    0    0    0    0    0    0    0    0   10    0
## 257    0    0    0    0    0    0    0    0    8    0
```

```
## 258     1     0        0       0       0     0     0       0       4       0
## 259     0     0        0       0       0     0     0       0       8       0
## 260     0     0        0       0       0     0     0       0       8       0
## 261     1     0        0       0       0     0     0       0       5       0
## 262     1     0        0       0       0     0     0       0       5       0
## 263     1     0        0       0       0     0     0       0       4       0
## 264     0     0        0       0       0     0     0       0       5       0
## 265     0     1        1       0       0     0     0       0      12       0
## 266     0     1        1       0       0     0     0       0      13       0
## 267     0     0        0       0       0     0     0       0       8       0
## 268     0     0        0       0       0     0     0     128       0      50
## 269     0     0        0       0       0     0     0       0       7       0
## 270     0     0        0       0       0     0     0       0       5       0
## 271     0     0        0       0       0     0     0       0       8       0
## 272     0     0        0       0       0     0     0       0       8       0
## 273     0     0        0       0       0     0     0       0      11       0
## 274     0     0        0       0       0     0     0       0      11       0
## 275     0     0        0       0       0     0     0      38       0       0
## 276     0     0        0       0       0     0     0       0      10       0
## 277     0     0        0       0       0     0     0       0       8       0
## 278     0     0        0       0       0     0     0       0       6       0
## 279     0     0        0       0       0     0     0       0       4       0
## 280     0     0        0       0       0     0     0      27       0      25
## 281     0     0        0       0       0     0     0       0       8       0
## 282     0     1        1       0       0     0     0       0      10       0
## 283     0     0        0       0       0     0     0       0       7       0
## 284     0     0        0       0       0     0     0       0       7       0
## 285     0     0        0       0       0     0     0       0       2       0
## 286     0     0        0       0       0     0     0       0       8       0
## 287     0     0        1       0       0     0     0       0       7       0
## 288     1     0        0       0       0     0     0       0       6       0
## 289     2     0        0       0       0     0     0       0      12       0
## 290     0     0        0       0       0     0     0      10       0       0
## 291     0     0        0       0       0     0     0       0       5       0
## 292     1     0        0       0       0     0     0       0       5       0
## 293     1     0        0       0       0     0     0       0       9       0
## 294     1     0        0       0       0     0     0       0       7       0
## 295     0     0        0       0       0     0     0       0      12       0
## 296     0     0        0       0       0     0     0       0       9       0
## 297     0     0        1       0       0     0     0       0       7       0
## 298     0     0        0       0       0     0     0       0       7       0
## 299     0     0        0       0       0     0     0       0       5       0
## 300     0     0        0       0       0     0     0       0      10       0
## 301     0     0        0       0       0     0     0       0       2       0
## 302     1     0        0       0       0     0     0       0       2       0
## 303     1     0        0       0       0     0     0       0       6       0
## 304     0     0        0       0       0     0     0       0       4       0
## 305     0     0        0       0       0     0     0       0       9       0
## 306     0     0        0       0       0     0     0      50       0      53
## 307     0     0        0       0       0     0     0       0      12       0
## 308     0     0        1       0       0     0     0       0       7       0
##     EMPTYP1 CABOOSE1 LOADF2 LOADP2 EMPTYF2 EMPTYP2 CABOOSE2   EQPDMG  TRKDMG
## 1         0        0      0     11       0       0        0  3135000       0
## 2         0        0      0      4       0       0        0   300000       0
```

```
## 3        0        0        0        0        0        0        0     8644        0
## 4        7        0        0        0        0        0        0  7000000  9930000
## 5        0        0        0        9        0        0        0  3790000        0
## 6        0        0        0        4        0        0        0   597000        0
## 7        0        0        0        0        0        0        0    43192        0
## 8        0        0        0        0        0        0        0    36810        0
## 9        0        0        0        7        0        0        0  6000000        0
## 10       0        0        0        4        0        0        0   100000    80000
## 11       0        0        0        0        0        0        0    21116        0
## 12       0        0        0        0        0        0        0    10000     2000
## 13       0        5        0        3        0        0        0     7000      600
## 14       0        0       26        0        5        0        0  1037730   290000
## 15       0        0        0        0        0        0        0    45503        0
## 16       0        0        0        5        0        0        0   438500        0
## 17       0        0        0        0        0        0        0     2000    15332
## 18       0        0        0       11        0        0        0        0        0
## 19       0        0        0        0        0        0        0   325000        0
## 20       1        0        0        0        0        0        0      545        0
## 21       4        0        0        0        0        2        0  2000000        0
## 22       0        0        0        3        0        0        0    27500    30000
## 23       0        0        0        0        0        0        0   150000    34425
## 24       0        0        0        0        0        0        0     7067        0
## 25       0        0        0       10        0        0        0   621000        0
## 26       0        0        0        1        0        0        0  3500000        0
## 27       0        0        0       21        0        0        0  7277500        0
## 28       0        0        0        0        0        0        0    60816        0
## 29       0        0        0        0        1        0        0   230000      100
## 30       0        0        0        0        0        0        0    40000        0
## 31       0        0        0       10        0        0        0   860000        0
## 32       8        0        0        0        0        5        0   551965        0
## 33       0        0        0        0        0        0        0    98950        0
## 34       0        0        0        0        0        0        0        0     9000
## 35       0        0        0        1        0        0        0    66142    61600
## 36       0        0        0        1        0        0        0    45000        0
## 37       0        0        0        4        0        0        0  2800000   123230
## 38       6        0        0        0        0        1        0    80000     5572
## 39       1        0        0        4        0        1        0  4023290  1152000
## 40       0        0        0        0        0        0        0    10000        0
## 41       0        0        0        0        0        0        0    22613     5200
## 42       0        0        0        0        0        0        0  1000000    18000
## 43       0        0        0       16        0        0        0   100400        0
## 44       0        0        0        2        0        0        0     6187        0
## 45       0        0        0        9        0        0        0  6896000        0
## 46       0        0        0        0        0        0        0    25000        0
## 47       3        0        0        0        0        0        0    60500     8000
## 48       0        0        0        0        0        0        0    10000        0
## 49       0        0        0        0        0        0        0   300000     1700
## 50       0        0       20        0        0        0        0  5466740   234025
## 51       0        0        0        0        0        0        0     8000        0
## 52       0        0        0        0        0        0        0    86356        0
## 53       0        0        0        0        0        0        0    20000        0
## 54       4        0        0        0        0        1        0     7000     4000
## 55       0        0        0        0        0        0        0  1200000    28080
## 56       0        0        0        0        0        0        0   305000        0
```

```
## 57      0      0      0      0      0      0      0    300      0
## 58      0      0     11      0      0      0      0 751154 436091
## 59      0      0      3      0      0      0      0 185192  93500
## 60      0      0      0      4      0      0      0 555000      0
## 61      0      0      0      0      0      0      0  10684      0
## 62      0      0      0      4      0      0      0 683000      0
## 63      0      0      0      4      0      0      0 650000      0
## 64      0      0      0      1      0      0      0 558717      0
## 65      0      0      0      4      0      0      0 700000      0
## 66      0      0      0      0      0      0      0  42500      0
## 67      0      0      0      0      0      0      0   5835   1000
## 68      0      0      0      0      5      0      0 902639  45000
## 69      0      0      0      0      0      0      0  11137      0
## 70      2      0      0      3      0      2      0 5000000 3000000
## 71      0      0      0      0      0      0      0   8398      0
## 72      0      0     12      0      4      0      0 1664700  75900
## 73      0      0      0      3      0      0      0 6300000 301105
## 74      0      0      0      0      0      0      0 200000      0
## 75      0      0      1      0     12      0      0 292530 2053200
## 76      0      1      0      0      1      0      0  96790      0
## 77      0      0      0      0      0      0      0  35340      0
## 78      0      0      0      0      0      0      0 350000      0
## 79      0      0      0      4      0      0      0 121000      0
## 80      0      0      0      2      0      0      0  47684      0
## 81      0      0      0      0      0      0      0  19002      0
## 82      0      0      0      0      0      0      0    383  24774
## 83      0      0      0      0      0      0      0  37000   3500
## 84      0      0      0      3      0      0      0 400000      0
## 85      2      0      9      0      0      1      0 1400000 541000
## 86      0      0     31      0      0      0      0 1625060 329010
## 87      0      0      0      1      0      0      0 500000  29273
## 88      0      0      0      0      0      0      0  36200      0
## 89      0      0      0      0      0      0      0   9712    170
## 90      0      0      0      0      0      0      0 130000   4741
## 91      0      0      3      0      2      0      0  25864  34255
## 92      0      0      0      0      0      0      0  30000      0
## 93      0      0      0      0      0      0      0   7701      0
## 94      0      0      0      0      0      0      0    800   7200
## 95      0      0      0      0      0      0      0 200263      0
## 96      0      0      0      0      0      0      0 100000      0
## 97      0      0     11      0     13      0      0 1116250 97000
## 98      0      0     10      0      9      0      0 713413 166025
## 99      0      0      0      0      0      0      0  75000      0
## 100     0      0      0      0      0      0      0  38541      0
## 101     0      0      0      0      0      0      0  97000      0
## 102     0      0      1      0      0      0      0 250000  52441
## 103     2      0      0      2      0      2      0 107533   2000
## 104     0      0      0      0      0      0      0 250000      0
## 105     0      0      0      0      0      0      0   7100   4140
## 106     0      0      0      0      0      0      0 450000  15841
## 107     0      0      7      1      0      0      0 260000 2288000
## 108     0      0     14      0      2      0      0 947827 225043
## 109     0      0      0      0      0      0      0   8207      0
## 110     0      0      0      0      0      0      0      0  12961
```

```
## 111      0      0      0      8      0      0      0  215036       0
## 112      0      0      0      0      0      0      0   11624       0
## 113      0      0      0      0      0      0      0   30500       0
## 114      0      0      0      0      0      0      0 1700000       0
## 115      0      0     11      0      0      0      0  196997   35874
## 116      0      0      0      0      0      0      0    1500       0
## 117      0      0      0      9      0      0      0  675000       0
## 118      0      0      0      4      0      0      0  217500       0
## 119      0      0      0      0      0      0      0  100000       0
## 120      8      0      0      0      0      1      0   36000       0
## 121      0      0      0      0      0      0      0    5056       0
## 122      1      0      0      3      0      1      0  250303       0
## 123      0      0      0      1      0      0      0  334436       0
## 124      0      0      0      1      0      0      0 1200000       0
## 125      0      0      0      6      0      0      0 1151054       0
## 126      0      0      0      0      0      0      0   26126       0
## 127      0      0      0      1      0      0      0 9000000  117325
## 128      0      0      0      0      0      0      0   49799       0
## 129      0      0      0      0      0      0      0  875796       0
## 130      0      0      0      1      0      0      0   10000    8872
## 131      0      0     11      0      0      0      0  742126  135300
## 132      0      0      0      0      1      0      0   49922     290
## 133      0      0      0      2      0      0      0   11700   20000
## 134      0      0      0      0      0      0      0  165000       0
## 135      0      0      0      0      0      0      0   90000       0
## 136      0      0      0      0      0      0      0   12500    3100
## 137      0      0      0      0      0      0      0  100000       0
## 138      0      0      0      0      0      0      0   10000    1500
## 139      0      0      0      0      0      0      0  200000       0
## 140      0      0      0      0      0      0      0   68199       0
## 141      0      0      0      0      0      0      0  150000       0
## 142      0      0      0      0      0      0      0   65228       0
## 143      0      0      0      0      0      0      0   40054       0
## 144      0      0     19      0      0      0      0 1342947  473706
## 145      0      0      0      0     18      0      0  799923  264763
## 146      0      0      0      0      0      0      0   24783       0
## 147      0      0      0      0      0      0      0   56717       0
## 148      0      0      0      0      0      0      0   25250       0
## 149      0      0      0      0      0      0      0   10000       0
## 150      0      0      0      0      0      0      0  250000       0
## 151      0      0      0      0      0      0      0   10000       0
## 152      0      0      0      2      0      0      0  100000       0
## 153      0      0      0      0      0      0      0  123169   85500
## 154      7      0      0      0      0      4      0  365332       0
## 155      0      0      0      0      0      0      0   10000       0
## 156      0      0      0      3      0      0      0 3200000       0
## 157      0      0      0      1      0      0      0  136726       0
## 158      0      0      0      0      0      0      0   15000       0
## 159      0      0      0      0      0      0      0   24047       0
## 160      0      0      0      0      0      0      0  300000       0
## 161      0      0      0      5      0      0      0   76882       0
## 162      0      0      0      0      0      0      0   11228   54567
## 163      0      0      0      0      0      0      0 2000000       0
## 164      0      0      0      1      0      0      0  663550       0
```

```
## 165      0      0      0      0      0      0      0    76617  276000
## 166      0      0      0      0      0      0      0    40000       0
## 167      0      0      0      0      0      0      0   404592       0
## 168      0      0      0      0      0      0      0  1264000       0
## 169      0      0      0      3      0      0      0  2594785       0
## 170      4      0      0      1      0      0      0    80000   44923
## 171      0      0      0      6      0      0      0  2152942       0
## 172      0      0     13      0      2      0      0  2230165  118856
## 173      0      0      0      0      0      0      0   150000       0
## 174      0      0      0      1      0      0      0   450000       0
## 175      0      0      0      0      0      0      0  8554000       0
## 176      0      0      0      0      0      0      0    63824   15000
## 177      0      0      0      0      0      0      0    45000       0
## 178      0      0      0      2      0      0      0  2281720       0
## 179      0      0      0      0      0      0      0    36436       0
## 180      0      0      0      0      0      0      0     9277   23829
## 181      0      0      7      0      0      0      0   389654   63000
## 182      0      0      0      0      0      0      0    38754    1790
## 183      0      0      0      0      0      0      0    82514       0
## 184      0      0      0      4      0      0      0   250905  150000
## 185      0      0      0      0      0      0      0    88302       0
## 186      0      0      0      0      0      0      0   280000       0
## 187      0      0      0      0      0      0      0    27071       0
## 188      0      0      0      0      0      0      0    11078    4098
## 189      0      0      0      0      0      0      0    70000       0
## 190      0      0      0      0      0      0      0    85000   27857
## 191      0      0      0      0      0      0      0   119114       0
## 192      0      0      0      0      0      0      0   150000       0
## 193      0      0      0      0      1      0      0    60855      75
## 194      0      0      0      2      0      0      0  2500000       0
## 195      0      0      0      0      0      0      0    10000       0
## 196      0      0      0      0      0      0      0    40000       0
## 197      0      0      0      0      0      0      0     1000   18300
## 198      1      0      0      0      0      0      0   150000   99000
## 199      0      0      0      8      0      0      0 11000000  100000
## 200      0      0      0      0      0      0      0   908191   54066
## 201      0      0      0      0      0      0      0   238776  200000
## 202      0      0      0      0      0      0      0    20953       0
## 203      0      0      0      0      0      0      0   305200       0
## 204      0      0      0      0      0      0      0     7000   21162
## 205      0      0      0      0      0      0      0    15664       0
## 206      0      0      0      0      0      0      0    45864       0
## 207      0      0      0      0      0      0      0    75571    7870
## 208      0      0      0      0      0      0      0      500   54274
## 209      0      0      0      0      0      0      0   125985       0
## 210      0      0      0      7      0      0      0  5000000  876090
## 211      0      0     14      0      0      0      0  4210835 3832368
## 212      0      0      6      0      9      0      0   504575  100000
## 213      0      0      0      8      0      0      0    65000       0
## 214      0      0      0      0      0      0      0   250000       0
## 215      1      0      0      3      0      1      0  1100000  100000
## 216      0      0      0      1      0      0      0  1000000       0
## 217      0      0      0      0      0      0      0    56470       0
## 218      0      0      0      0      0      0      0   100000       0
```

```
## 219     0     0     0     0     0     0     0  250000       0
## 220     0     0     0     0     0     0     0  193000       0
## 221     0     0     0     0     0     0     0   13874       0
## 222     0     0     0     0     0     0     0     100   15281
## 223     0     0     0     0     0     0     0   80000   20869
## 224     0     0     0     0     0     0     0   25434       0
## 225     0     0     0     0     0     0     0   39312       0
## 226     0     0     0     0     0     0     0   27454       0
## 227     0     0     0     0     0     0     0   20000       0
## 228     0     0     0     4     0     0     0 4148125       0
## 229     0     0     0     0     0     0     0   62082       0
## 230     0     0    10     0     0     0     0 5592849 2176946
## 231     0     0     0     7     0     0     0 27140000 3630962
## 232     0     0     0     0     0     0     0 3600000  100000
## 233     0     0     0     0     0     0     0   15468    1893
## 234     0     0     0     0     0     0     0  185000  455165
## 235     0     0     0     0     0     0     0  510025       0
## 236     0     0     0     0     0     0     0    7385   14036
## 237     0     0     0     4     0     0     0 14000000       0
## 238     0     0     1     0     0     0     0  119559  152121
## 239     0     0     0     0     0     0     0   26000       0
## 240     0     0     0     0     0     0     0   34615       0
## 241     0     0     0     1     0     0     0 2013371       0
## 242     0     0     0     0     0     0     0  230000       0
## 243     0     0     0     0     0     0     0   23607       0
## 244     0     0     0     0     0     0     0  136620      50
## 245     0     0     0     0     0     0     0   28809       0
## 246     0     0     0     0     0     0     0   17370       0
## 247     0     0     0     0     0     0     0   53662       0
## 248     0     0     0     0     0     0     0   22657       0
## 249     0     0     0     0     0     0     0   11356       0
## 250     0     0     0     8     0     0     0 2784355       0
## 251     0     0     0     0     0     0     0   46031       0
## 252     0     0     0     0     0     0     0  120613       0
## 253     0     0     0     0     0     0     0   12810       0
## 254     0     0     0     0     0     0     0 3159938  497313
## 255     0     0     0     0     0     0     0   83708       0
## 256     0     0     0     0     0     0     0   34658       0
## 257     0     0     0     0     0     0     0   15066       0
## 258     0     0     0     1     0     0     0  595768  146950
## 259     0     0     0     0     0     0     0   19068       0
## 260     0     0     0     0     0     0     0   10542       0
## 261     0     0     0     0     0     0     0   34667       0
## 262     0     0     0     2     0     0     0 2608512       0
## 263     0     0     0     1     0     0     0 6000000   12000
## 264     0     0     0     0     0     0     0   61000       0
## 265     0     0     0    12     0     0     0 25406000       0
## 266     0     0     0     3     0     0     0 2634879       0
## 267     0     0     0     0     0     0     0   33661       0
## 268     0     0    20     0    12     0     0 2130312   74904
## 269     5     0     0     3     0     2     0  781821  153000
## 270     0     0     0     0     0     0     0   69819       0
## 271     0     0     0     0     0     0     0   23548       0
## 272     0     0     0     0     0     0     0   22421       0
```

```
## 273       0        0      0      3       0       0        0    50782  461768
## 274       0        2      0      0       0       0        0    24000       0
## 275       0        0      0      0       0       0        0      250   90446
## 276       0        0      0      3       0       0        0   245409       0
## 277       0        0      0      0       0       0        0    53271       0
## 278       0        0      0      3       0       0        0  4902864  446000
## 279       0        0      0      0       0       0        0   600000    5000
## 280       0        0      0      0       0       0        0     1600   32662
## 281       0        0      0      0       0       0        0    11477       0
## 282       0        0      0      0       0       0        0    40491       0
## 283       0        0      0      0       0       0        0    38550       0
## 284       0        0      0      0       0       0        0    38716       0
## 285       0        0      0      0       0       0        0   210000     960
## 286       0        0      0      0       0       0        0    15630       0
## 287       0        0      0      5       0       0        0 16994885       0
## 288       0        0      0      0       0       0        0    22129       0
## 289       0        0      0      3       0       0        0    77150       0
## 290       0        0      0      0       0       0        0      587   16069
## 291       0        0      0      0       0       0        0   360374       0
## 292       0        0      0      0       0       0        0    23100       0
## 293       0        0      0      0       0       0        0    15000       0
## 294       0        0      0      0       0       0        0    28384    1805
## 295       0        0      0      0       0       0        0    35841       0
## 296       0        0      0      0       0       0        0    15033       0
## 297       0        0      0      0       0       0        0   103926       0
## 298       0        0      0      0       0       0        0    70354       0
## 299       0        0      0      0       0       0        0    39620    4278
## 300       0        0      0      0       0       0        0    28341       0
## 301       0        0      0      0       0       0        0    50000       0
## 302       1        0      0      0       0       0        0   550000   31267
## 303       0        0      0      0       0       0        0    18075       0
## 304       0        0      0      0       0       0        0   200000   31000
## 305       0        0      0      0       0       0        0   250000       0
## 306       0        0     24      0      15       0        0  2279395 1466591
## 307       0        0      0      3       0       0        0  4000000  750000
## 308       0        0      0      5       0       0        0  1061627       0
##     CAUSE CAUSE2 CASKLDRR CASINJRR CASKLD CASINJ ACCAUSE ACCTRK ACCTRKCL
## 1    T220              1       49      1     49    T220      1        4
## 2    H216   H605       0       41      0     41    H216      1        4
## 3    M302              7        2      7      2    M302      1        5
## 4    M501   M503       0       16      0     16    M501      1        3
## 5    H215              0       25      0     25    H104      1        5
## 6    H215   H604       0       18      0     18    H215      1        5
## 7    M399              0        4      0      4    M399      1        3
## 8    M302              0        4      0      4    M399      1        5
## 9    T002   M103       0       16      0     16    M103      1        4
## 10   M501   T108       0       19      0     19    M501      1        4
## 11   M307   H994       2        3      2      3    M307      1        4
## 12   M304              0        5      0      5    M304      1        X
## 13   T299              0       10      0     10    T299      1        1
## 14   T215              1        0      1      0    T215      1        3
## 15   M303              0        4      0      4    M303      1        5
## 16   H999              0        5      0      5    H999      1        5
## 17   M399   M302       3        1      3      1    M399      1        4
```

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## 18   T109            0      72     0     72    H993     1        4
## 19   M302            0       4     0      4    M399     1        5
## 20   H499            0      20     0     20    H499     1        1
## 21   H204            0       5     0     11    H204     1        2
## 22   H403            0      64     0     64    H403     2        3
## 23   H204            0       6     0     11    H204     1        2
## 24   M302            2       2     2      2    M302     1        4
## 25   M304   M302     0      19     0     19    M304     1        4
## 26   H215            3      13     3     14    H215     1        4
## 27   T109            4     132     4    132    T109     1        4
## 28   M302            0       6     0      6    M302     1        4
## 29   T299            0       4     0      4    T299     1        2
## 30   M302            0       5     0      5    M302     1        4
## 31   M302            2      35     2     35    M302     1        4
## 32   H605            0       8     0      8    H605     1        3
## 33   M302            0       4     0      4    M302     1        4
## 34   M303            3       1     3      1    M303     1        4
## 35   H099   H401     0       9     0      9    H099     1        3
## 36   E53L   H218     0      16     0     17    E53L     1        6
## 37   M302            2      22     2     22    M302     1        4
## 38   H607   H601     0      10     0     10    H607     1        4
## 39   H699            0      54     0     54    H699     1        4
## 40   M302            1      19     1     19    M303     1        4
## 41   M302            1       3     1      3    M302     1        4
## 42   H307   H210     0       4     0      4    H307     1        1
## 43   T110            0       9     0      9    T110     1        4
## 44   H222            0      20     0     20    H222     1        1
## 45   T199            1      44     1     44    T199     1        4
## 46   H222            0      29     0     31    H222     1        3
## 47   H205            1       4     1      4    H205     1        6
## 48   M302            0       6     0      6    M302     1        4
## 49   M308            3       1     3      1    M308     1        2
## 50   H221            3      79     3     79    H221     1        4
## 51   M302            2       4     2      4    M302     1        4
## 52   M302            1       3     1      3    M302     1        4
## 53   M302            4       1     4      1    M302     1        3
## 54   H307   H607     0       0     0      4    H307     2        1
## 55   M304   M303     0      32     0     32    M304     1        3
## 56   M406            0       6     0      6    E99C     1        4
## 57   M302            3       1     3      1    M302     1        4
## 58   M302            1       3     1      3    M302     1        4
## 59   M399            1       4     1      4    M399     1        3
## 60   T110            0      45     0     45    T110     1        4
## 61   M302            4       0     4      0    M302     1        4
## 62   M404            0      10     0     10    M404     1        4
## 63   M308            2      21     2     21    M308     1        4
## 64   M302            0       5     0      5    M399     1        5
## 65   M404            0      35     0     35    M101     1        4
## 66   M302            1       4     1      4    M302     1        4
## 67   M302            1       3     1      3    M302     1        4
## 68   H405   H211     0       0     0      6    H405     1        3
## 69   M303            0      15     0     15    M303     1        4
## 70   H699            2     155     2    155    H699     1        1
## 71   M304            0       4     0      4    M304     1        2
```

## 72	H702		9	292	9	292	H702	4	1
## 73	M402		0	0	11	70	M402	1	4
## 74	M304		0	4	0	4	M304	1	4
## 75	H607		0	0	1	46	H607	1	2
## 76	H018		0	0	0	7	H018	1	2
## 77	M302		0	11	0	11	M302	1	5
## 78	M303		1	3	1	3	M302	1	5
## 79	T110		0	4	0	4	T110	1	3
## 80	T314		0	8	0	8	T314	1	2
## 81	M302		0	9	0	9	M302	1	5
## 82	M302	M305	3	1	3	1	M302	1	4
## 83	M304		0	11	0	11	M304	1	4
## 84	T314		0	7	0	7	T314	1	4
## 85	M504		2	2	2	2	M504	1	3
## 86	M303		1	3	1	3	M303	1	4
## 87	M303		0	28	0	28	M303	1	3
## 88	H221		0	42	0	42	H221	1	3
## 89	M399		1	3	1	3	M399	1	4
## 90	M304	M302	0	7	0	7	M304	1	2
## 91	M308		0	4	0	4	M308	1	4
## 92	H499		0	4	0	4	H499	1	4
## 93	M302	M304	0	4	0	4	M302	1	4
## 94	M402		3	2	3	2	M402	1	5
## 95	M302		0	6	0	6	M302	1	5
## 96	M304		0	8	0	8	M304	1	5
## 97	E46C		0	4	0	4	E46C	1	4
## 98	T202		0	34	0	34	T202	1	4
## 99	M304		0	5	0	5	M304	1	4
## 100	M303		4	0	4	0	M303	1	4
## 101	M302		1	13	1	13	M302	1	4
## 102	H205	M503	2	2	2	2	H205	1	2
## 103	H799		0	5	0	5	H799	1	3
## 104	M308		0	9	0	9	M308	1	3
## 105	M302		1	3	1	3	M302	1	3
## 106	H499	M599	2	10	2	10	H499	1	3
## 107	T401		0	6	0	6	T401	1	1
## 108	E62C		0	22	0	22	E62C	1	4
## 109	M308		1	4	1	4	M308	1	5
## 110	M399		1	3	1	3	M399	1	4
## 111	T113		0	5	0	5	T113	3	3
## 112	M302		6	0	6	0	M302	1	5
## 113	M302		0	18	0	18	M303	1	5
## 114	H222	H605	0	136	0	136	H222	1	3
## 115	T207		0	4	0	4	T207	1	2
## 116	M308		4	2	4	2	M308	1	4
## 117	M308		1	33	1	33	M308	1	4
## 118	M308		0	10	0	10	M308	1	5
## 119	M302		0	4	0	4	M302	1	4
## 120	H017		0	16	0	16	H017	1	2
## 121	H099		0	0	0	12	H099	1	1
## 122	M399		0	14	0	14	M399	1	4
## 123	M302		0	32	0	35	M302	1	5
## 124	M302		0	40	0	40	M302	1	4
## 125	M302		0	6	0	6	M302	1	4

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## 126  M302              0        4      0      4    M302      1        4
## 127  H220             25       58     25     61    H220      1        3
## 128  M302              0        7      0      7    M302      1        5
## 129  M507              0      138      0    138    M599      1        8
## 130  H607              0        7      0      7    H607      3        1
## 131  M304              0        4      0      4    M304      1        4
## 132  M302              0        4      0      4    M302      1        4
## 133  E69C              0        4      0      4    E69C      1        1
## 134  M302              0       11      0     11    M302      1        4
## 135  M302              0        9      0      9    M302      1        5
## 136  M302              0        4      0      4    M302      1        3
## 137  H607   H402       0       20      0     20    H607      1        3
## 138  M399              0       10      0     10    M399      1        3
## 139  M302              0        9      0      9    M302      1        4
## 140  M304              0        5      0      5    M304      1        5
## 141  M404              0        5      0      5    M404      1        4
## 142  E74L              0        7      0      7    E74L      1        3
## 143  M404              0       11      0     11    M404      1        4
## 144  T002              1       11      1     11    T002      1        4
## 145  M304              0        4      0      4    M304      1        4
## 146  M302              0        6      0      6    M302      1        4
## 147  M402              0        4      0      4    M402      1        4
## 148  M302              3        3      3      3    M302      1        5
## 149  M302              2        2      2      2    M308      1        5
## 150  M302              0        9      0      9    M302      1        4
## 151  M302              0        4      0      4    M308      1        3
## 152  T319              0       14      0     14    T319      1        5
## 153  M304              0        4      0      4    M304      1        4
## 154  H221   H999       0        4      0      6    H221      2        1
## 155  M303              0        4      0      4    M303      1        4
## 156  M303              0       17      0     17    M303      1        4
## 157  M308              0       30      0     30    M308      1        4
## 158  M302              3        2      3      2    M302      1        4
## 159  M308   M301       0       21      0     21    M308      1        5
## 160  H993              0        4      0      4    H993      1        4
## 161  T001              0       14      0     14    T001      1        4
## 162  M308              0        3      0      3    M308      1        4
## 163  H221              0       16      0     19    H221      1        1
## 164  M302              1        8      1      8    M302      1        4
## 165  H599   H999       0       35      0     35    H599      1        3
## 166  M302              0       22      0     22    M302      1        5
## 167  M302              0       57      0     57    M302      1        5
## 168  M406              0        7      0      7    M406      1        6
## 169  M302              0       11      0     11    M302      1        4
## 170  M308              2        7      2      7    M308      1        4
## 171  M404              0       29      0     29    M404      1        4
## 172  M308   M304       0        4      0      4    M308      1        4
## 173  M402              0       19      0     19    M402      1        4
## 174  M308              1       31      1     31    M308      1        4
## 175  M303              6      101      6    101    M303      1        5
## 176  M308              1        7      1      7    M308      1        4
## 177  M304              0        5      0      5    M304      1        4
## 178  M304              0       17      0     17    M304      1        4
## 179  M308              1        3      1      3    M308      1        5
```

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## 180  M302           0      10     0     10    M302     1        4
## 181  T401           0     385     0    385    T401     1        1
## 182  M308           3      16     3     16    M308     1        3
## 183  M302   M303    1       5     1      5    M302     1        5
## 184  H994           0      15     0     15    H994     2        4
## 185  M302           1      36     1     36    M302     1        5
## 186  E74L           0       5     0      5    E74L     2        1
## 187  M302           0       5     0      5    M302     1        4
## 188  M302           4      24     4     24    M302     1        5
## 189  M302   M303    1       3     1      3    M302     1        4
## 190  T399           0      11     0     11    T399     1        1
## 191  M304           0       5     0      5    M304     1        5
## 192  M302           1       7     1      7    M302     1        6
## 193  H318   H312    0       4     0      4    H318     4        1
## 194  M308           0      47     0     47    M308     1        5
## 195  M304           0      13     0     13    M304     1        5
## 196  M303           0       7     0      7    M303     1        4
## 197  M302           0       4     0      4    M302     1        5
## 198  M303           1      23     1     23    M303     1        2
## 199  T213   T001    0       0     0    132    T213     1        4
## 200  M399           1       3     1      3    M399     1        5
## 201  M304           0      10     0     10    M304     1        3
## 202  M302           0       5     0      5    M302     1        4
## 203  M303           0       7     0      7    M303     1        3
## 204  M302           0      22     0     22    M302     1        4
## 205  M302           1       3     1      3    M302     1        5
## 206  M302           1      12     1     12    M302     1        4
## 207  M399           0       5     0      5    M399     1        4
## 208  M302           2       2     2      2    M302     1        5
## 209  M302           0      23     0     23    M302     1        4
## 210  H604   H199    4      82     4     82    H604     1        2
## 211  H221   H605    0       7     0      7    H221     1        4
## 212  M304           0       7     0      7    M304     1        4
## 213  T308           0      21     0     21    T308     1        5
## 214  M308           0       7     0      7    M308     1        4
## 215  T310           0      24     0     24    T310     1        2
## 216  M302           0       7     0      7    M302     1        4
## 217  M302           1       7     1      7    M302     1        4
## 218  M302           0       6     0      6    M302     1        5
## 219  M302           0       9     0      9    M302     1        4
## 220  M303           0      16     0     16    M303     1        3
## 221  M302           0       6     0      6    M302     1        5
## 222  M399           4       1     4      1    M399     1        4
## 223  M399           0       4     0      4    M399     1        4
## 224  M302           1       3     1      3    M302     1        5
## 225  M402           3       2     3      2    M402     1        8
## 226  M308   M301    3       1     3      1    M308     1        4
## 227  M303           0       4     0      4    M302     1        4
## 228  M101           0      13     0     13    M101     1        3
## 229  M308           1       3     1      3    M308     1        5
## 230  M103           0       4     0      4    M103     1        4
## 231  H999           8     241     8    241    H999     1        7
## 232  M308   M303    6      40     6     40    M308     1        3
## 233  M308           1       7     1      7    M308     1        4
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## 234  T403             0       4      0       4    T403       1        4
## 235  M302             1      15      1      15    M302       1        4
## 236  M302             0       4      0       4    M302       1        4
## 237  M402             1      28      1      28    M402       1        4
## 238  E53C             0     197      0     197    E53C       1        3
## 239  M308             0      17      0      17    M308       1        6
## 240  M302             0       8      0       8    M302       1        3
## 241  M303             0      87      0      87    M303       1        4
## 242  M304             0      12      0      12    M302       1        4
## 243  M302             0       6      0       6    M302       1        4
## 244  M308             1       3      1       3    M308       1        4
## 245  M308             2       2      2       2    M308       1        5
## 246  M402             0       7      0       7    M402       1        4
## 247  M302             0      12      0      12    M302       1        4
## 248  M302             3       3      3       3    M302       1        4
## 249  M302             0       4      0       4    M302       1        4
## 250  M506             0      60      0      60    M506       1        4
## 251  M302             0       4      0       4    M302       1        4
## 252  M302             1      13      1      13    M302       1        4
## 253  M308   M304      1       3      1       3    M308       1        4
## 254  H402             2     123      2     123    H402       1        6
## 255  M302             3       4      3       4    M302       1        5
## 256  M302             5       3      5       3    M302       1        4
## 257  M302             0       7      0       7    M302       1        5
## 258  M304             0      23      0      23    M304       1        4
## 259  M302             0       4      0       4    M302       1        5
## 260  M308             1       4      1       4    M308       1        4
## 261  M308             0       5      0       5    M308       1        4
## 262  M101             0       9      0       9    M101       1        3
## 263  H222   H604      1     158      1     158    H222       1        1
## 264  M308             0       4      0       4    M308       1        6
## 265  H604             3      90      3      90    H604       1        4
## 266  H221   H605      0      16      0      17    H221       1        3
## 267  M302             0      22      0      22    M302       1        4
## 268  H019             0       6      0       6    H019       1        3
## 269  H404   H607      0       8      0       8    H404       1        3
## 270  M402             0       4      0       4    M402       1        5
## 271  M303             0       7      0       7    M303       1        4
## 272  M304             0       9      0       9    M304       1        4
## 273  E40C             0       4      0       4    E40C       1        1
## 274  M304   M304      0       9      0       9    M304       1        2
## 275  M304             0       7      0       7    M304       1        2
## 276  T113             0       7      0       7    T113       1        1
## 277  T217             0       5      0       7    T217       1        1
## 278  H222   H605      0     113      0     113    H222       1        1
## 279  M309             0       3      0       3    M309       1        4
## 280  M302             4      41      4      41    M302       1        4
## 281  M308             1       3      1       3    M302       1        4
## 282  M308             1      10      1      10    M308       1        3
## 283  M302             1      10      1      10    M302       1        4
## 284  M302             0       5      0       5    M302       1        6
## 285  M308             2       5      2       5    M308       1        5
## 286  M308             0       6      0       6    M308       1        4
## 287  H702             2     133      2     134    H702       2        1
```

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## 288  M308              0        5      0      5    M308      1        4
## 289  M101              0        4      0      4    M101      1        4
## 290  M308              3        1      3      1    M308      1        3
## 291  M302              1        8      1      8    M302      1        4
## 292  M302              0        5      0      5    M302      1        6
## 293  M509              0        3      0      3    M509      1        5
## 294  M304              0        4      0      4    M304      1        4
## 295  M304              0        5      0      5    M304      1        4
## 296  M308              0        4      0      4    M308      1        5
## 297  M304              0       22      0     22    M304      1        4
## 298  M302              1        9      1      9    M302      1        4
## 299  M308              0        4      0      4    M308      1        6
## 300  M308              3        2      3      2    M308      1        4
## 301  M303   M302       1        3      1      3    M303      1        4
## 302  M304   M302       0        5      0      5    M304      1        4
## 303  M302              0        6      0      6    M302      1        4
## 304  M308              0        4      0      4    M308      1        4
## 305  M302              0       11      0     11    M302      1        4
## 306  T204              0        6      0      6    T204      1        4
## 307  M308              3        8      3      8    M308      1        4
## 308  M308              1        7      1      7    M308      1        5
##     HIGHSPD   ACCDMG DUMMY2 STCNTY TOTINJ DUMMY3 TOTKLD ENGRS FIREMEN CONDUCTR
## 1        52  3387850     NA 19C003     49      0      1     1       0        1
## 2        59   309672     NA 36C067     41      0      0     1       0        1
## 3        79     8644     NA 06C029      2      0      7     2       0        2
## 4         0 16930000     NA 36C061     16      0      0    NA      NA       NA
## 5        72  4640240     NA 49C045     25      0      0     2       0        2
## 6        46  1710440     NA 48C203     18      0      0     1       0        2
## 7        38    43192     NA 48C123      4      0      0     1       0        1
## 8        38    36810     NA 13C183      4      0      0     1       1        2
## 9        44  6214130     NA 29C093     16      0      0     2       0        2
## 10       60   180000     NA 34C003     19      0      0     1      NA        1
## 11       79    21116     NA 06C047      3      0      2     1       1        1
## 12        7    12000     NA 47C095      5      0      0     1      NA        1
## 13       12     7600     NA 18C047     10      0      0     2       0        1
## 14       41  1327730     NA 38C101   1000      0      1     1       0        1
## 15       67    45503     NA 06C029      4      0      0     1       0        1
## 16       60   580417     NA 06C001      5      0      0     1       0        1
## 17       47    17332     NA 27C097      1      0      3     1       0        1
## 18       59    58700     NA 24C031     72      0      0     1       0        1
## 19       76   327000     NA 12C105      4      0      0     2       0        2
## 20       10    10289     NA 36C081     18      0      0     1       0        1
## 21       18  2184430     NA 24C005      5      0      0     1       0        1
## 22       16   149000     NA 17C089     55      0      0     1       0        1
## 23       18  2184430     NA 24C005      6      0      0     1       0        1
## 24       40     7067     NA 48C073      2      0      2     1       0        1
## 25       80   716000     NA 45C053     19      0      0     1       0        1
## 26       20  3518750     NA 06C059     13      0      3     1      NA        1
## 27       56  7388050     NA 12C107    132      0      4     2       0        2
## 28       50    60816     NA 01C073      6      0      0     2       0        1
## 29       25   230100     NA 51C085      4      0      0     1       0        1
## 30       43    40000     NA 06C013      5      0      0     1       0        1
## 31       78  1060000     NA 13C179     35      0      2     1       1        1
## 32       10   558168     NA 06C067      8      0      0     1       1        2
```

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## 33       55    98950     NA 29C223      4      0      0     1       1        1
## 34       47     9000     NA 21C015      1      0      3     1       0        1
## 35        8   127742     NA 34C017      9      0      0     1       0        1
## 36       69   193857     NA 34C017     16      0      0     1       0        1
## 37       79  2923230     NA 06C037     22      0      2     1      NA        1
## 38       12   135572     NA 36C119      5      0      0     1       0        1
## 39       68  5175290     NA 17C031     54      0      0     1      NA        2
## 40       78    27500     NA 51C153     19      0      1     2       0        1
## 41       55    27813     NA 38C093      3      0      1     1       0        1
## 42        5  1018000     NA 42C101      4      0      0     1       0        1
## 43       24   142400     NA 20C209      9      0      0     1       1        1
## 44        9    10639     NA 17C031     18      0      0     1       0        1
## 45       78  6996000     NA 28C163     44      0      1     1       0        2
## 46       10    80000     NA 36C061     29      0      0     1      NA        1
## 47       60    68500     NA 09C009      4      0      1     1       0        1
## 48       38    10000     NA 28C145      6      0      0     1       0        1
## 49       19   301700     NA 22C087      1      0      3     1       0        1
## 50       45  6323070     NA 48C029     79      0      3     1       0        1
## 51       79     8000     NA 09C003      4      0      2     1       0        1
## 52       41    86356     NA 48C487      3      0      1     1       0        1
## 53       40    20000     NA 13C087      1      0      4     1       0        1
## 54       14    24000     NA 34C025      4      0      0     1       0        1
## 55       60  1228080     NA 36C119     32      0      0     1       0        1
## 56       74   305000     NA 39C123      6      0      0     1       0        1
## 57       73     7369     NA 37C127      1      0      3     1       0        1
## 58       48  1187250     NA 48C325      3      0      1     1       0        1
## 59       29   278692     NA 55C027      4      0      1     1       1        2
## 60       60   709019     NA 53C059     45      0      0     1       0        2
## 61       74    10684     NA 22C105      0      0      4     1       0        2
## 62       49   801781     NA 08C077     10      0      0     1       0        1
## 63       48   658000     NA 37C183     21      0      2     1       0        1
## 64       64   559717     NA 06C111      5      0      0     1       0        1
## 65       60   780000     NA 29C099     35      0      0     2       0        1
## 66       70    50632     NA 49C019      4      0      1     1       0        2
## 67       53     6835     NA 05C093      3      0      1     1       0        2
## 68       39  1812590     NA 51C175      6      0      0     1       0        1
## 69       70    11137     NA 17C031     15      0      0     1      NA        1
## 70       69  8000000     NA 17C031    155      0      2     1      NA        2
## 71       30     8398     NA 17C031      4      0      0     1      NA        1
## 72       47  2333400     NA 45C003    292      0      9     1       0        1
## 73       74 13020300     NA 06C037     37      0      8     1      NA        1
## 74       44   200000     NA 34C005      4      0      0     1       0        0
## 75       17  2379170     NA 05C091     46      0      1     1       0        1
## 76       18   125610     NA 49C051      7      0      0     1       0        1
## 77       69    35760     NA 48C089     11      0      0     1       1        1
## 78       76   451400     NA 12C057      3      0      1     1       0        2
## 79       40   233168     NA 53C043      4      0      0     1       0        1
## 80        9    74184     NA 48C245      8      0      0     2       0        2
## 81       76    31002     NA 12C099      9      0      0     2       0        2
## 82       55    25157     NA 17C163      1      0      3     1       0        1
## 83       61    40500     NA 17C031     11      0      0     1       0        1
## 84       42   425000     NA 51C153      7      0      0     1       0        2
## 85       40  1941000     NA 06C061      2      0      2     2       0        1
## 86       47  1954070     NA 40C017      3      0      1     1       0        1
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## 87       40   529273     NA 25C021     28      0      0     1       0        3
## 88       11   179700     NA 42C091     17      0      0     1       0        1
## 89       53     9882     NA 20C149      3      0      1     1       0        1
## 90       27   134741     NA 08C023      7      0      0     1       0        1
## 91       37    73304     NA 01C097      4      0      0     2       0        1
## 92       21    30000     NA 21C019      4      0      0     1       0        1
## 93       48   105701     NA 08C045      4      0      0     1       0        1
## 94       61     8000     NA 48C375      2      0      3     1       0        1
## 95       37   200263     NA 22C001      6      0      0     2       0        2
## 96       69   101800     NA 22C089      8      0      0     2       0        3
## 97       52  1213250     NA 48C309      4      0      0     1       0        1
## 98       30   879438     NA 17C055     34      0      0     1       0        1
## 99       79    83000     NA 17C031      5      0      0     1      NA        1
## 100      75    38541     NA 53C015      0      0      4     1       0        1
## 101      75    97000     NA 26C075     13      0      1     1       0        1
## 102      20   302441     NA 40C089      2      0      2     1       0        1
## 103      47   109533     NA 09C009      5      0      0     1       0        1
## 104      48   250000     NA 42C091      9      0      0     1       0        1
## 105      48    11240     NA 42C091      3      0      1     1       0        1
## 106      62   560841     NA 25C017      6      0      0     1       0        2
## 107       4  2548000     NA 01C091      6      0      0     1       0        0
## 108      50  1172870     NA 05C037     22      0      0     1       0        1
## 109      62     8207     NA 05C031      4      0      1     1       0        1
## 110      27    12961     NA 31C157      3      0      1     1       0        1
## 111      29   265912     NA 06C071      5      0      0     2       0        1
## 112      78    15624     NA 06C099      0      0      6     1       0        2
## 113      38    48500     NA 06C095     18      0      0     1       0        2
## 114      33  1719000     NA 17C031    136      0      0     2       0        3
## 115      11   232871     NA 28C035      4      0      0     1      NA        1
## 116      74     8929     NA 12C105      2      0      4     1       0        2
## 117      67   750000     NA 12C057     33      0      1     1       0        1
## 118      64   515500     NA 06C029     10      0      0     1       0        1
## 119      79   100500     NA 13C051      4      0      0     2       0        1
## 120      14    57000     NA 17C031     16      0      0     1       0        1
## 121       8    22906     NA 11C001     12      0      0     1       0        1
## 122      51   409488     NA 17C117     14      0      0     1       0        2
## 123      70   377436     NA 06C031     32      0      0     1       0        2
## 124      79  1256768     NA 28C029     40      0      0     2       0        2
## 125      68  1206561     NA 48C201      6      0      0     2       0        2
## 126      52    26126     NA 48C091      4      0      0     1       0        1
## 127      42 13071151     NA 06C037     58      0     25     1       0        1
## 128      79    49799     NA 06C095      7      0      0     1       0        1
## 129       0   878796     NA 25C021    138      0      0     1       0        2
## 130       9    18872     NA 06C077      7      0      0     1       0        1
## 131      47   877426     NA 47C157      4      0      0     2       1        1
## 132       8    50212     NA 28C075      4      0      0     0       0        1
## 133      13    31700     NA 17C031      4      0      0     1       0        2
## 134      77   184263     NA 17C117     11      0      0     1       0        2
## 135      69   125000     NA 37C119      9      0      0     1       0        2
## 136      25    15600     NA 13C207      4      0      0     1       0        1
## 137      30   700000     NA 42C101     15      0      0     1       0        1
## 138      45    11500     NA 34C007     10      0      0     1       0        1
## 139      54   200500     NA 48C097      9      0      0     1       0        2
## 140      70    68199     NA 37C025      5      0      0     1       0        1
```

```
## 141       4   150000     NA 34C007      5       0       0       1       0       0
## 142      50    65228     NA 42C101      7       0       0       1       0       1
## 143      73    68418     NA 28C113     11       0       0       1       0       2
## 144      34  1816653     NA 17C201     11       0       1       1       0       1
## 145      47  1064686     NA 48C145      4       0       0       1       1       1
## 146      46    24783     NA 22C099      6       0       0       1       1       1
## 147      50    56757     NA 06C013      4       0       0       1       0       1
## 148      80   160233     NA 17C099      3       0       3       1       0       1
## 149      77    10000     NA 18C039      2       0       2       1       0       1
## 150      79   250000     NA 12C099      9       0       0       1       2       2
## 151      30    10100     NA 37C051      4       0       0       1       1       1
## 152      26   238135     NA 05C119     14       0       0       2       1       1
## 153      45   208669     NA 48C283      4       0       0       1       0       1
## 154      12   416332     NA 11C001      4       0       0       1       0       1
## 155      58    35000     NA 26C163      4       0       0       1       0       2
## 156      59  3305000     NA 37C001     17       0       0       1       0       2
## 157      77   144726     NA 06C029     30       0       0       1       0       2
## 158      69    15000     NA 12C107      2       0       3       2       0       2
## 159      66    24047     NA 22C001     21       0       0       1       1       1
## 160      69   301440     NA 36C065      4       0       0       1       0       2
## 161      48   154479     NA 17C119     14       0       0       1       0       1
## 162      58    65795     NA 06C037      3       0       1       1       0       1
## 163      12  2041199     NA 17C031     16       0       0       1       0       1
## 164      75   860655     NA 23C031      8       0       1       1       0       1
## 165      13   352617     NA 34C017     35       0       0       1       0       1
## 166      44    70374     NA 06C099     22       0       0       1       0       2
## 167      79   404592     NA 06C013     57       0       0       1       0       2
## 168       0  1264000     NA 10C003      7       0       0       1       0       1
## 169      47  2635985     NA 22C103     11       0       0       1       0       2
## 170      68   124923     NA 17C031      7       0       2       1      NA       1
## 171      55  2310942     NA 31C057     29       0       0       3       0       2
## 172      47  2349021     NA 22C081      4       0       0       1       0       1
## 173      50   150000     NA 12C011     19       0       0       1       0       1
## 174      51   450000     NA 17C031     31       0       1       1       0       3
## 175      79  8768682     NA 32C001    101       0       6       1       0       1
## 176      65    78824     NA 36C103      7       0       1       1       0       1
## 177      67    45000     NA 53C033      5       0       0       1       0       1
## 178      60  2318720     NA 26C075     17       0       0       1       0       1
## 179      79    36461     NA 28C163      3       0       1       1       0       1
## 180      45    33106     NA 06C037     10       0       0       1       0       1
## 181       8   452654     NA 34C015    385       0       0       1       0       1
## 182      41    40544     NA 06C067     16       0       3       1       0       0
## 183      83   120514     NA 06C073      5       0       1       1       0       1
## 184      61   400905     NA 26C021     15       0       0       1       0       1
## 185      60   193802     NA 12C095     36       0       1       1       1       1
## 186       0   280000     NA 17C031      5       0       0       1       0       0
## 187      75    27771     NA 28C049      5       0       0       1       0       1
## 188      62    15176     NA 48C329     24       0       4       1       0       1
## 189      40    70000     NA 48C453      3       0       1       1       0       0
## 190      15   112857     NA 42C101     11       0       0       1       0       1
## 191      52   119114     NA 06C107      5       0       0       1       0       1
## 192      47   153000     NA 48C439      7       0       1       1       0       1
## 193       8    60930     NA 22C047      4       0       0       1       0       1
## 194      79  2931000     NA 06C031     47       0       0       1       0       2
```

```
## 195      51    11333     NA 37C081     13      0      0     1       0        2
## 196      25    40000     NA 06C073      7      0      0     1       0        1
## 197      25    19300     NA 48C439      4      0      0     1       0        2
## 198      10   249000     NA 54C083     23      0      1     1       0        1
## 199      74 18100000     NA 09C001     77      0      0     1       0        1
## 200      59   962257     NA 48C245      3      0      1     1       0        1
## 201      59   438776     NA 34C031     10      0      0     1       0        1
## 202      53    20953     NA 34C005      5      0      0     1       0        0
## 203      48   305200     NA 34C003      7      0      0     1       0        1
## 204      76    28162     NA 06C037     22      0      0     1       0        1
## 205      59    15664     NA 05C111      3      0      1     1       1        1
## 206      62    45864     NA 27C153     12      0      1     1       0        1
## 207      46    83441     NA 13C077      5      0      0     1       1        1
## 208      58    54774     NA 19C101      2      0      2     1       0        1
## 209      79   127489     NA 28C051     23      0      0     1       0        1
## 210      82  5876090     NA 36C005     82      0      4     1       0        3
## 211      47  8686769     NA 29C201      7      0      0     1       0        1
## 212      48   604575     NA 24C005      7      0      0     1       0        1
## 213      60   245000     NA 45C083     21      0      0     1       0        2
## 214      78   250000     NA 48C481      7      0      0     2       0        1
## 215      27  1200000     NA            24      0      0     1      NA        1
## 216      80  1000000     NA 09C003      7      0      0     1       0        1
## 217      73    57470     NA 12C099      7      0      1     1       0        1
## 218      77   120000     NA 06C047      6      0      0     1       0        2
## 219      79   258080     NA 22C105      9      0      0     2       0        2
## 220      60   193000     NA 18C181     16      0      0     1       0        2
## 221      79    13973     NA 48C029      6      0      0     1       0        3
## 222      46    15381     NA 17C051      1      0      4     1       0        1
## 223      60   100869     NA 17C031      4      0      0     1      NA        1
## 224      79    25434     NA 06C039      3      0      1     1       1        2
## 225     107    39312     NA 25C005      2      0      3     1       0        1
## 226      74    27454     NA 48C177      1      0      3     2       0        2
## 227      70    20000     NA 51C081      4      0      0     1       0        3
## 228      59  4329857     NA 50C023     13      0      0     1       0        1
## 229      44    62082     NA 01C073      3      0      1     2       0        2
## 230      34  7769795     NA 48C097      4      0      0     1       0        1
## 231     106 31538754     NA 42C101    241      0      8     1       0        1
## 232      58  3700000     NA 36C119     40      0      6     1       0        1
## 233      50    17361     NA 34C005      7      0      1     1       0        0
## 234       0   640165     NA 28C039      4      0      0     1       0        0
## 235      77   511019     NA 22C105     15      0      1     1       0        1
## 236      40    21421     NA 06C037      4      0      0     1       0        1
## 237      56 14154754     NA 06C111     28      0      1     2       0        1
## 238      34   271680     NA 47C009    197      0      0     1       0        1
## 239      52    39993     NA 17C197     17      0      0     1       0        2
## 240      59    34615     NA 45C055      8      0      0     2       0        2
## 241      70  2044084     NA 37C083     87      0      0     1       0        2
## 242      77   230000     NA 38C049     12      0      0     2       0        1
## 243      70    23632     NA 28C083      6      0      0     1       0        2
## 244      46   136670     NA 13C093      3      0      1     1       1        1
## 245      79    28809     NA 06C019      2      0      2     1       0        1
## 246      28    17370     NA 12C095      7      0      0     1       0        1
## 247      39    85066     NA 41C047     12      0      0     1       0        1
## 248      67    23450     NA 28C089      3      0      3     1       0        2
```

```
## 249      42    11356      NA 01C097      4      0      0     1      0      1
## 250      60  3147355      NA 20C069     60      0      0     1      1      1
## 251      45    46056      NA 28C135      4      0      0     1      0      2
## 252      79   120638      NA 28C051     13      0      1     1      0      2
## 253      30    12810      NA 34C005      3      0      1     1     NA     NA
## 254     102  3657251      NA 42C045    123      0      2     1      0      1
## 255      79    84008      NA 06C039      4      0      3     1      0      2
## 256      74    34658      NA 08C071      3      0      5     1      2      2
## 257      70    15212      NA 12C057      7      0      0     1      0      2
## 258      64   742718      NA 12C099     23      0      0     1      0      1
## 259      57    25368      NA 48C113      4      0      0     1      0      1
## 260      73    12964      NA 17C075      4      0      1     1      0      2
## 261      79    34667      NA 06C001      5      0      0     1      0      1
## 262      40  2650471      NA 06C001      9      0      0     1      0      1
## 263      21  6012000      NA 34C017    158      0      1     1      0      1
## 264      64    61000      NA 17C197      4      0      0     2      0      2
## 265      78 25831000      NA 53C053     90      0      3     1      0      2
## 266      32  2719791      NA 53C053     16      0      0     1      0      1
## 267      54    85115      NA 45C025     22      0      0     1      0      1
## 268      29  2205216      NA 42C009      6      0      0     1      0      1
## 269      56   934821      NA 36C119      8      0      0     1      0      4
## 270      80    74819      NA 06C029      4      0      0     1      0      2
## 271      72    28031      NA 12C105      7      0      0     2      0      2
## 272      79    41336      NA 12C097      9      0      0     1      0      2
## 273      13   512550      NA 17C031      4      0      0     1      0      1
## 274       9    24000      NA 37C173      9      0      0     1      0      1
## 275      17    90696      NA 48C201      7      0      0     1      0      1
## 276      13   963409      NA 36C061      7      0      0     1      0      1
## 277       5   342031      NA 36C061      5      0      0     1      0      1
## 278      12  5348864      NA 36C047    113      0      0     1     NA      1
## 279      69   605000      NA 08C001      3      0      1     1     NA     NA
## 280      19    34262      NA 28C047     41      0      4     1      0      1
## 281      71    11574      NA 12C055      3      0      1     2      0      2
## 282      61   284491      NA 51C003     10      0      1     1      0      1
## 283      79    39850      NA 22C105     10      0      1     1      0      1
## 284      57    55448      NA 48C157      5      0      0     2      0      2
## 285      75   210960      NA 48C439      5      0      2     1      0      1
## 286      75    15880      NA 48C203      6      0      0     1      0      1
## 287      52 17336899      NA 45C063    133      0      2     1      0      2
## 288      63    67785      NA 26C045      5      0      0     1      0      2
## 289       5    77315      NA 13C051      4      0      0     1      0      2
## 290      39    16656      NA 13C121      1      0      3     1      0      1
## 291      78   360374      NA 17C011      8      0      1     1      0      1
## 292      79    23100      NA 42C071      5      0      0     1      0      1
## 293      90    15000      NA 34C023      3      0      1     1      0      1
## 294      62    30189      NA 34C003      4      0      0     1      0      1
## 295      73    35938      NA 12C107      5      0      0     1      1      1
## 296      70    15333      NA 48C141      4      0      0     1      0      1
## 297      60   107906      NA 48C291     22      0      0     2      0      1
## 298      77    70354      NA 28C049      9      0      1     1      0      1
## 299     110    43898      NA 26C021      4      0      0     2      0      2
## 300      70    28341      NA 06C013      2      0      3     1      0      1
## 301      35    50000      NA 06C097      3      0      1     1     NA      2
## 302      57   581267      NA 36C027      5      0      0     1      0      1
```

```
## 303      58    18075     NA 18C089      6      0      0     1       0        1
## 304      45   231000     NA 08C001      4      0      0     1       0        0
## 305      51   250000     NA 28C163     11      0      0     1       0        1
## 306      47  3745986     NA 13C163      6      0      0     1       0        1
## 307      75  4750000     NA 36C059      8      0      3     1       0        1
## 308      69  1561627     NA 17C197      7      0      1     1       1        1
##     BRAKEMEN ENGHR ENGMIN CDTRHR CDTRMIN JOINTCD REGION DUMMY4 TYPRR DUMMY5
## 1          1     3     46      8      45       1      6           1L     NA
## 2          1    NA     53      4      10       1      1           1L     NA
## 3          2     7     19      7      19       2      7           1L     NA
## 4         NA    NA     NA     NA      NA       1      1           3L     NA
## 5          0     5     NA      5      NA       2      7           1L     NA
## 6          0     2     22      2      22       2      5           1L     NA
## 7          0    12     NA     12      NA       1      5      W    1L     NA
## 8          0     6     31      6      31       2      3           1L     NA
## 9          0     5     32      5      32       2      6           1L     NA
## 10         1     4     15      4      15       1      1           3L     NA
## 11         1     4      5      4       5       1      7           1L     NA
## 12        NA     8     35      8      35       1      3           3L     NA
## 13         2     6     25      5      55       1      4           3L     NA
## 14         0     4     24      4      24       1      8           1L     NA
## 15         0     2     45      2      45       1      7            1     NA
## 16         1     1     47      7      12       2      7           1L     NA
## 17         0     3     40      3      40       1      4            1     NA
## 18         2     6      6      8      55       2      2           1L     NA
## 19         0     5     57      5      57       2      3           1L     NA
## 20         1     5     10      5      10       1      1      E    3L     NA
## 21         1     3      1      3       1       2      2            3     NA
## 22         2     9     18      9      18       1      4            3     NA
## 23         1     5     51      1      41       1      2           1L     NA
## 24         0     6     15      6      15       1      5      W    1L     NA
## 25         1     3      6      3      16       1      3           1L     NA
## 26        NA     6     45      6      45       2      7           3L     NA
## 27         0     2      5      2       5       1      3           1L     NA
## 28         1     6     20      6      20       1      3           1L     NA
## 29         0     3     30      3      30       1      2           1L     NA
## 30         1     2      5      2      15       2      7   <NA>    1L     NA
## 31         1     8      9      8       9       1      3   <NA>    1L     NA
## 32         2    11     20     11      20       2      7   <NA>    1L     NA
## 33         0     5     NA      5      NA       2      6   <NA>    1L     NA
## 34         0    NA     40     NA      40       1      3   <NA>    1L     NA
## 35         0     2     26      2      26       1      1   <NA>    3L     NA
## 36         1     1     40      1      40       1      1   <NA>    3L     NA
## 37        NA     5     NA      5      NA       1      7   <NA>    3L     NA
## 38         1    11     50      9       5       3      1   <NA>    3L     NA
## 39        NA     3      7      3       7       1      4   <NA>    3L     NA
## 40         1     3      2      3       2       2      2   <NA>    1L     NA
## 41         1     3     37      3      37       1      8   <NA>    1L     NA
## 42         0    10     25     10      25       1      2   <NA>    3L     NA
## 43         1     7     30      7      30       1      6   <NA>    1L     NA
## 44         1     3     37      3      37       1      4   <NA>     3     NA
## 45         0     1     14      7       3       1      3   <NA>    1L     NA
## 46         1     1     15      1      15       2      1   <NA>    3L     NA
## 47         0     7     45      7      45       1      1   <NA>    1L     NA
```

```
## 48          0     7     20      7      20       1      3    <NA>     1L      NA
## 49          1     2     37      2      37       1      5    <NA>     1L      NA
## 50          0     2     19      2      19       2      5    <NA>     1L      NA
## 51          1     1      8      1       8       1      1    <NA>     1L      NA
## 52          0     8     50      8      50       1      5    <NA>     1L      NA
## 53          0     2     30      2      30       1      3    <NA>     1L      NA
## 54          1     4     20      4      20       3      1    <NA>     3L      NA
## 55          2     3     15      3      15       1      1    <NA>     3L      NA
## 56          1     1     30      1      30       2      2    <NA>     1L      NA
## 57          1     3     13      3      13       2      3    <NA>     1L      NA
## 58          0     1     24      1      24       1      5    <NA>     1L      NA
## 59          0     6     50      6      50       1      4    <NA>     1L      NA
## 60          0     4     20      8       5       1      8    <NA>     1L      NA
## 61          0     3     40      3      40       1      5    <NA>     1L      NA
## 62          1     3     30      3      30       1      6    <NA>     1L      NA
## 63          1     2      2      2       2       2      3    <NA>     1L      NA
## 64          1     8     50      9       5       2      7    <NA>     1L      NA
## 65          2     2     53      2      53       2      6    <NA>     1L      NA
## 66          0     2      3      8      10       2      7    <NA>     1L      NA
## 67          0     9     45      9      45       1      5    <NA>     1L      NA
## 68          0     9     17      9      17       3      2    <NA>     1L      NA
## 69          1     4     18      2      57       1      4    <NA>     3L      NA
## 70          1     1     31      1      41       1      4    <NA>     3L      NA
## 71          1     2     10      3      31       1      4    <NA>     3L      NA
## 72          0     2      9      2       9       1      3    <NA>     1L      NA
## 73         NA     1     48      1      48       3      7    <NA>     3L      NA
## 74          0     6      4     NA      NA       1      1    <NA>      3      NA
## 75          0     7     26      7      26       3      5    <NA>     1L      NA
## 76          0     1     30      1      30       3      7    <NA>     3L      NA
## 77          1     9     51      8      51       1      5    <NA>     1L      NA
## 78          0     7     15      7      15       2      3    <NA>     1L      NA
## 79          1     4     28      9      20       1      8    <NA>     1L      NA
## 80          0     1     21      1      21       2      5    <NA>     1L      NA
## 81          0     2     48      2      48       1      3    <NA>     1L      NA
## 82          0    10     35     10      35       1      4    <NA>     1L      NA
## 83          1     9     NA      9      NA       1      4    <NA>      3      NA
## 84          0     1     28      1      28       2      2    <NA>      3      NA
## 85          0     5     NA      5      NA       1      7    <NA>     1L      NA
## 86          1     3     17      3      17       1      5    <NA>     1L      NA
## 87          0     2     38      2      38       1      1    <NA>      3      NA
## 88          1     2      7      2       2       1      2    <NA>     3L      NA
## 89          0     4     30      4      30       1      6    <NA>     1L      NA
## 90          0     7     20      7      20       1      6    <NA>      3      NA
## 91          1     3     40      3      40       1      3    <NA>     1L      NA
## 92          0     1     50      1      50       1      3    <NA>     1L      NA
## 93          0     4     45      4      45       1      6    <NA>     1L      NA
## 94          0     4     NA      4      NA       1      5    <NA>     1L      NA
## 95          0     5      3      5       3       1      5    <NA>     1L      NA
## 96          0     2     50      2      50       1      5    <NA>     1L      NA
## 97          0     2     45      2      45       1      5    <NA>     1L      NA
## 98          1     6      4      6       4       1      4    <NA>     1L      NA
## 99          1     4     37      1      22       2      4    <NA>     3L      NA
## 100         1     3     42      8      57       2      8    <NA>     1L      NA
## 101         1     7     14      4      59       1      4    <NA>     1L      NA
```

```
## 102     1     5     26     5     26     1     5   <NA>    3L     NA
## 103     0     1     36     1     36     1     1   <NA>    3L     NA
## 104     1     8     31     8     31     1     2   <NA>    3L     NA
## 105     0     2     31     2     31     1     2   <NA>    3L     NA
## 106     0     2     20     2     20     1     1   <NA>     3     NA
## 107     0     4     30    NA     NA     1     3   <NA>    3L     NA
## 108     0     5     11     5     11     1     5   <NA>    1L     NA
## 109     0     2     58     2     58     1     5   <NA>    1L     NA
## 110     0     8     40     8     40     1     6   <NA>    1L     NA
## 111     1     2     39     2     39     1     7   <NA>    1L     NA
## 112     0     7     45     5     20     1     7   <NA>    1L     NA
## 113     0     1     50     1     50     2     7   <NA>    1L     NA
## 114     0    11     50    11     50     2     4   <NA>    1L     NA
## 115     1     2     30     2     30     1     3   <NA>    1L     NA
## 116     0     1     31     1     31     2     3   <NA>    1L     NA
## 117     1     7     10     7     10     2     3   <NA>    1L     NA
## 118     1     2      5     2      5     2     7   <NA>    1L     NA
## 119     1     4     24     4     24     2     3   <NA>    1L     NA
## 120     1     8     28     8     28     2     4   <NA>    3L     NA
## 121     1     1     NA     1     NA     3     2   <NA>    1L     NA
## 122     0     5     NA     5     NA     2     4   <NA>    1L     NA
## 123     0     8     NA     3     NA     1     7   <NA>    1L     NA
## 124     0     2     10     4     30     1     3   <NA>    1L     NA
## 125     0     5     44     5     44     1     5   <NA>    1L     NA
## 126     0     4      5     4      5     1     5   <NA>    1L     NA
## 127     0     5     57     5     57     2     7   <NA>    3L     NA
## 128     1     2     47     2     47     2     7   <NA>    1L     NA
## 129     0     4      9     4      9     2     1   <NA>     3     NA
## 130     0     7     30     7     35     1     7   <NA>    3L     NA
## 131     0    12     NA     6     NA     1     3   <NA>    1L     NA
## 132     0    NA     NA     4     NA     1     3   <NA>    1L     NA
## 133     0     1     33     1     33     1     4   <NA>    1L     NA
## 134     0     3     35     3     35     1     4   <NA>    1L     NA
## 135     0     1      2     1      2     1     3   <NA>    1L     NA
## 136     1     3     NA     3     NA     1     3   <NA>    1L     NA
## 137     0     1      8     1      8     1     2   <NA>    3L     NA
## 138     0     3     13     3     13     1     1   <NA>    3L     NA
## 139     0     3     55     3     55     1     5   <NA>    1L     NA
## 140     1     3     58     3     58     1     3   <NA>    1L     NA
## 141     0     4     36    NA     NA     1     1   <NA>     3     NA
## 142     1     2     10     2     10     1     2   <NA>    3L     NA
## 143     0     7     33     5     48     1     3   <NA>    1L     NA
## 144     0     6     36     6     36     1     4   <NA>    3L     NA
## 145     0     3     16     3     16     1     5   <NA>    1L     NA
## 146     1     4     34     4     34     1     5   <NA>    1L     NA
## 147     1     8      7     8      7     1     7   <NA>    1L     NA
## 148     1     2     NA     2     NA     2     4   <NA>    1L     NA
## 149     1     3      4     3      4     2     4   <NA>    1L     NA
## 150     0     7     49     7     49     2     3   <NA>    1L     NA
## 151     1     7     NA     7     NA     2     3   <NA>    1L     NA
## 152     1     7     59     7     59     1     5   <NA>     6     NA
## 153     1     7     14     7     14     1     5   <NA>     1     NA
## 154     1     1     53     1     53     1     2   <NA>     6     NA
## 155     1     1     54     1     54     1     4   <NA>     6     NA
```

```
## 156      0     1     55     1     55     1     3   <NA>     6     NA
## 157      0     3     36     7      5     2     7   <NA>     6     NA
## 158      0     8      4     8      4     1     3   <NA>     6     NA
## 159      1     4     10     4     10     2     5   <NA>     6     NA
## 160      0     2     34     2     34     1     1   <NA>     6     NA
## 161      1     1     18     1     18     1     4   <NA>     6     NA
## 162      0     4     35     4     35     1     7   <NA>     6     NA
## 163      2     1     58     1     58     2     4   <NA>     6     NA
## 164      1     6     19     6     19     2     1   <NA>     6     NA
## 165      0     3     27     3     27     1     1   <NA>     6     NA
## 166      0     7     26     4     36     2     7   <NA>     6     NA
## 167      0     2     50     2     50     2     7   <NA>     6     NA
## 168      1     2     32     2     32     1     2   <NA>     6     NA
## 169      0     2     42     2     42     1     5   <NA>     6     NA
## 170      1     9     55     9     55     1     4   <NA>     6     NA
## 171      0     9     11     9     11     2     6   <NA>     6     NA
## 172      1     3     50     3     50     1     5   <NA>     1     NA
## 173      0     3     55     3     55     1     3   <NA>     6     NA
## 174      0     2     33     1     50     1     4   <NA>     2     NA
## 175      1     4     NA     4     NA     1     7   <NA>     6     NA
## 176      1    NA     44    NA     44     1     1   <NA>     6     NA
## 177      1     1     35     6     40     1     8   <NA>     6     NA
## 178      2     2     19     2     19     1     4   <NA>     6     NA
## 179      1     3     33     1     28     1     3   <NA>     6     NA
## 180      0     9     25     9     25     1     7   <NA>     6     NA
## 181      0     4      5     4      5     1     1   <NA>     3     NA
## 182      0     6     39    NA     NA     1     7   <NA>     6     NA
## 183      1     8     14     8     29     2     7   <NA>     6     NA
## 184      1     3     32     3     32     1     4   <NA>     6     NA
## 185      1     4     50     4     50     2     3   <NA>     6     NA
## 186      0     2     30    NA     NA     1     4   <NA>     6     NA
## 187      2    NA     49     3     11     2     3   <NA>     6     NA
## 188      0     2     55     2     55     1     5   <NA>     1     NA
## 189      0     3     10    NA     NA     1     5   <NA>     3     NA
## 190      0     3     33     3     33     1     2   <NA>     6     NA
## 191      2     1     51     1     51     1     7   <NA>     6     NA
## 192      1     8      1     8      1     1     5   <NA>     6     NA
## 193      0     6      6     6      6     1     5   <NA>     2     NA
## 194      0     2     40     6     15     2     7   <NA>     6     NA
## 195      0     2     27     7     57     2     3   <NA>     6     NA
## 196      0     1     56     1     56     1     7   <NA>     6     NA
## 197      0    10     10    10     10     1     5   <NA>     1     NA
## 198      0    11     30    11     30     1     2   <NA>     3     NA
## 199      3    10     48    10     48     3     1   <NA>     6     NA
## 200      0     7     48     7     48     1     5   <NA>     1     NA
## 201      2     1     16     1     16     1     1   <NA>     6     NA
## 202      0     3      5    NA     NA     1     1   <NA>     6     NA
## 203      2     7     28     7     28     1     1   <NA>     6     NA
## 204      0     2     11     2     11     1     7   <NA>     6     NA
## 205      0     3     17     3     17     1     5   <NA>     1     NA
## 206      0     4     46     4     46     2     4   <NA>     6     NA
## 207      0     8     10     8     10     1     3   <NA>     1     NA
## 208      1     3      5     3      5     1     6   <NA>     1     NA
## 209      2     3      6     1      1     2     3   <NA>     6     NA
```

```
## 210      0     1     26      1      26      1      1   <NA>      6     NA
## 211      0     4     45      4      45      2      6   <NA>      1     NA
## 212      0     5     50      5      50      1      2   <NA>      1     NA
## 213      0     5      9      5       9      2      3   <NA>      6     NA
## 214      1     4     48      4      48      1      5   <NA>      6     NA
## 215      1     7     25      7      25      1      8   <NA>      3     NA
## 216      2     4      5      4       5      1      1   <NA>      6     NA
## 217      0     2     45      2      45      2      3   <NA>      6     NA
## 218      0     4     10      4      10      1      7   <NA>      6     NA
## 219      0     2     28      4      48      2      5   <NA>      6     NA
## 220      0     3     30      3      30      2      4   <NA>      6     NA
## 221      0     3     47      3      47      1      5   <NA>      6     NA
## 222      0     3     50      3      50      1      4   <NA>      1     NA
## 223      1     4     16      4       1      1      4   <NA>      6     NA
## 224      1     2     41      2      41      1      7   <NA>      6     NA
## 225      3    10     51     10      51      1      1   <NA>      6     NA
## 226      0     7     27      7      27      2      5   <NA>      6     NA
## 227      0     3     11      3      11      2      2   <NA>      6     NA
## 228      1     1     51      1      51      2      1   <NA>      6     NA
## 229      0     3     40      3      40      2      3   <NA>      6     NA
## 230      0     5     45      5      45      1      5   <NA>      1     NA
## 231      2     8     NA      8      NA      1      2   <NA>      6     NA
## 232      0    10      5      8      50      1      1   <NA>      6     NA
## 233      0     1     30     NA      NA      1      1   <NA>      6     NA
## 234      0     4     10     NA      NA      1      3   <NA>      2     NA
## 235      1     2     44      6       4      1      5   <NA>      6     NA
## 236      0     3     35      3      35      1      7   <NA>      1     NA
## 237      0     1     20      1      20      1      7   <NA>      6     NA
## 238      0     9     15      9      15      1      3   <NA>      1     NA
## 239      0     7     39      7      39      1      4   <NA>      6     NA
## 240      0     7     57      7      57      2      3   <NA>      6     NA
## 241      2     2     40      2      40      1      3   <NA>      6     NA
## 242      1     8      5      8       5      2      8   <NA>      6     NA
## 243      0     2     36      8      NA      2      3   <NA>      6     NA
## 244      0     3     17      3      17      1      3   <NA>      1     NA
## 245      1     4     NA      4      NA      1      7   <NA>      6     NA
## 246      0     4     10      4      10      1      3   <NA>      3     NA
## 247      1     3      4      3       4      2      8   <NA>      6     NA
## 248      0    NA     52      6      26      1      3   <NA>      6     NA
## 249      0     5     40      5      40      1      3   <NA>      1     NA
## 250      1     3     51      3      51      1      6   <NA>      6     NA
## 251      0     2     38      8       2      2      3   <NA>      6     NA
## 252      0     3      6      1       1      2      3   <NA>      6     NA
## 253     NA     6     21     NA      NA      1      1   <NA>      6     NA
## 254      2     1     55      1      55      1      2   <NA>      6     NA
## 255      0     3     32      3      32      1      7   <NA>      6     NA
## 256      0     2     NA      2      NA      1      6   <NA>      6     NA
## 257      0     5     51      5      51      1      3   <NA>      6     NA
## 258      0     3     20      3      20      1      3   <NA>      6     NA
## 259      1     6     50      6      50      2      5   <NA>      6     NA
## 260      0     2     46      2      46      2      4   <NA>      6     NA
## 261      1     1     38      1      38      1      7   <NA>      6     NA
## 262      0     5     40      5      45      1      7   <NA>      6     NA
## 263      1     1     52      2       7      1      1   <NA>      6     NA
```

```
## 264        0     1     49      1      49       1      4   <NA>     6     NA
## 265        0     2     33      2      33       2      8   <NA>     6     NA
## 266        1     3     29      3      29       2      8   <NA>     6     NA
## 267        2    11     59     11      59       2      3   <NA>     6     NA
## 268        0     4     56      4      56       1      2   <NA>     1     NA
## 269        0     9      5      7      51       1      1   <NA>     6     NA
## 270        0     2     NA      2      NA       1      7   <NA>     6     NA
## 271        0     1     32      4      12       2      3   <NA>     6     NA
## 272        0     2     48      2      48       1      3   <NA>     6     NA
## 273        1     5     45      5      45       1      4   <NA>     6     NA
## 274        1    10     NA     10      NA       1      3   <NA>     3     NA
## 275        0     8     51      8      51       1      5   <NA>     1     NA
## 276        1     2     NA      2      NA       2      1   <NA>     6     NA
## 277        1     4     22      4      22       2      1   <NA>     6     NA
## 278        1     8      2      8       2       1      1   <NA>     6     NA
## 279       NA     1      5     NA      NA       1      6   <NA>     3     NA
## 280        0     6     41      6      41       1      3   <NA>     1     NA
## 281        0     4     26      4      26       2      3   <NA>     6     NA
## 282        2     4     31      4      31       1      2   <NA>     6     NA
## 283        1     3      5      5      25       2      5   <NA>     6     NA
## 284        0     8     18      8      18       2      5   <NA>     6     NA
## 285        0     6     54      6      54       1      5   <NA>     6     NA
## 286        1     1     55      1      55       2      5   <NA>     6     NA
## 287        0     3     44      3      44       1      3   <NA>     6     NA
## 288        0     1     29      1      29       1      4   <NA>     6     NA
## 289        0     5     31      5      31       1      3   <NA>     6     NA
## 290        0    10      5     10       5       1      3   <NA>     1     NA
## 291        0     2     35      2      14       2      4   <NA>     6     NA
## 292        2     4     43      4      43       1      2   <NA>     6     NA
## 293        1     1     19      1      34       1      1   <NA>     6     NA
## 294        1     4     34      4      49       1      1   <NA>     6     NA
## 295        2     1     50      1      50       2      3   <NA>     6     NA
## 296        2     5     10      5      10       1      5   <NA>     6     NA
## 297        1     9     42      9      42       2      5   <NA>     6     NA
## 298        1     2     10      4      10       2      3   <NA>     6     NA
## 299        0     1     51      1      51       1      4   <NA>     6     NA
## 300        1     4      1      8       6       2      7   <NA>     6     NA
## 301       NA     8     NA      8      NA       1      7   <NA>     6     NA
## 302        0     8     58      8      44       1      1   <NA>     6     NA
## 303        1     3     18      3      18       1      4   <NA>     6     NA
## 304        0     6     17     NA      NA       1      6   <NA>     6     NA
## 305        1     4     12      1      57       1      3   <NA>     6     NA
## 306        0     4     28      4      28       1      3   <NA>     1     NA
## 307        4     5     48      5      48       1      1   <NA>     6     NA
## 308        1     1     43      1      43       2      4   <NA>     6     NA
##      RRDIV METHOD NARRLEN DUMMY6 YEAR4 RREMPKLD RREMPINJ PASSKLD PASSINJ
## 1              E     192     NA  2001        0       15       1      34
## 2              G      58     NA  2001        0        4       0      37
## 3              E      43     NA  2001        0        2       0       0
## 4             MO    1499     NA  2001        0       16       0       0
## 5              E     157     NA  2001        0       11       0      14
## 6              E     165     NA  2001        0        8       0      10
## 7   SANANT      J     228     NA  2001        0        1       0       0
## 8              E     157     NA  2001        0        4       0       0
```

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## 9              EO     183     NA  2001        0        7        0        9
## 10  HOBOKE   DEGM     182     NA  2001        0        1        0       18
## 11             E     115     NA  2001        0        0        0        3
## 12  SYSTEM     L     607     NA  2001        0        0        0        0
## 13  SYSTEM     I    1080     NA  2002        0        0        0       10
## 14             J    1499     NA  2002        0        1        0        0
## 15             A     151     NA  2002        0        2        0        0
## 16           GIJ     318     NA  2002        0        3        0        2
## 17             E     148     NA  2002        0        0        0        0
## 18             E     207     NA  2002        0       11        0       61
## 19             E     150     NA  2002        0        1        0        3
## 20  SYSTEM    FM     433     NA  2002        0        3        0       15
## 21             F      74     NA  2002        0        4        0        1
## 22             E     259     NA  2002        0        3        0       52
## 23             F      89     NA  2002        0        1        0        5
## 24  HOUSTO     E     110     NA  2002        0        0        0        0
## 25             E     157     NA  2002        0        6        0       13
## 26  SYSTEM     E      71     NA  2002        0        2        3        9
## 27             E      76     NA  2002        0       25        4      107
## 28             E     125     NA  2002        0        4        0        1
## 29             K     206     NA  2002        0        4        0        0
## 30    PAC      E     160     NA  2003        0        4        0        0
## 31    SOU      E     233     NA  2003        1       10        0       25
## 32    PAC      E     205     NA  2003        0        8        0        0
## 33    CEN    EIM      97     NA  2003        0        1        0        2
## 34  CENTRA     E     111     NA  2003        0        0        0        0
## 35  TRANSP   CFG    1498     NA  2003        0        0        0        8
## 36  AMTRAK  BCDE     274     NA  2003        0        0        0       16
## 37  SYSTEM     E      64     NA  2003        0        2        1       20
## 38  NEW HA    DE     277     NA  2003        0        5        0        0
## 39  ROCK I     E     317     NA  2003        0        3        0       51
## 40    MAD      E     172     NA  2003        0        5        0       14
## 41  TWIN C    JG     229     NA  2003        0        3        0        0
## 42  SYSTEM   DGL     205     NA  2004        0        4        0        0
## 43    CEN   EFM     176     NA  2004        0        5        0        4
## 44  COMMUT     F     189     NA  2004        0        3        0       15
## 45    SOU      E     301     NA  2004        0       11        1       33
## 46  SYSTEM  BCDG     306     NA  2004        0        2        0       27
## 47    NED   BDG     136     NA  2004        0        1        0        0
## 48  SPRING     E     191     NA  2004        0        0        0        0
## 49  ALABAM     O     114     NA  2004        2        1        0        0
## 50  SAN AN     E     255     NA  2004        1        1        0        0
## 51    NED BCDEGH     123     NA  2004        0        3        0        1
## 52   TEXAS     E     103     NA  2004        0        2        0        0
## 53  JACKSO     E     232     NA  2004        0        1        0        0
## 54  NEWARK     N     327     NA  2004        0        4        0        0
## 55  HARLEM    DE     218     NA  2004        0        8        0       24
## 56    CEN      A     142     NA  2004        0        6        0        0
## 57    SOU      E     109     NA  2004        0        0        0        0
## 58  SAN AN     E     225     NA  2005        0        2        0        0
## 59  TWIN C    GJ     314     NA  2005        0        4        0        0
## 60    PAC      E     132     NA  2005        0        8        0       37
## 61    SOU      E      95     NA  2005        0        0        0        0
## 62    CEN      E     170     NA  2005        0        4        0        6
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## 63     SOU      J      91     NA  2005        0        4        0       17
## 64     SWD     EG     193     NA  2005        0        3        0        0
## 65     SWD      E     186     NA  2005        0        8        0       27
## 66     PAC      E     166     NA  2005        0        1        0        3
## 67  SPRING      E     265     NA  2005        0        3        0        0
## 68  FLOREN      K      45     NA  2005        0        6        0        0
## 69  CHICAG      E      97     NA  2005        0        0        0        3
## 70  ROCK I      E     103     NA  2005        0        5        2      150
## 71   METRA     GH      88     NA  2005        0        0        0        0
## 72  PIEDMO      J     333     NA  2005        1        1        0        0
## 73  SYSTEM      E     379     NA  2005        0        2        8       35
## 74  RIVERL    CGE     420     NA  2005        0        0        0        3
## 75   NORTH      L     213     NA  2005        0        1        0        0
## 76  SYSTEM      I     293     NA  2005        0        2        0        5
## 77     SWD      E     111     NA  2006        0        2        0        8
## 78     SOU      E     423     NA  2006        0        1        0        2
## 79     PAC      E     128     NA  2006        0        2        0        2
## 80     SWD     EI     124     NA  2006        0        0        0        8
## 81     SOU      E     201     NA  2006        0        0        0        1
## 82  CENTRA      E     495     NA  2006        0        0        0        0
## 83  COMMUT     BE     214     NA  2006        0        0        0       10
## 84    MADV    DEI     173     NA  2006        0        2        0        5
## 85  ROSEVI     GJ     337     NA  2006        0        0        0        0
## 86  WICHIT      J     222     NA  2006        0        3        0        0
## 87  FRANKL      G      79     NA  2006        0        2        0       26
## 88  SYSTEM     GK     119     NA  2006        0        3        0       14
## 89  DENVER      G      96     NA  2006        0        2        0        0
## 90  SYSTEM      J      81     NA  2006        0        0        0        6
## 91  ALABAM      J      70     NA  2006        0        3        0        0
## 92     C&O      E     153     NA  2006        0        4        0        0
## 93  POWDER      E      55     NA  2006        0        0        0        0
## 94  KANSAS      E     188     NA  2006        0        0        0        0
## 95     CEN     GJ     121     NA  2006        0        2        0        4
## 96     SOU     GJ     129     NA  2006        0        0        0        8
## 97   TEXAS      E     188     NA  2006        0        0        0        0
## 98  ST LOU      E     134     NA  2006        0        0        0        0
## 99  HERITA      E      49     NA  2006        0        0        0        5
## 100    PAC      E     206     NA  2006        0        0        0        0
## 101    CEN      G     151     NA  2006        0        0        0       13
## 102 SYSTEM     IL    1500     NA  2007        1        2        0        0
## 103 WATERB      J     232     NA  2007        0        2        0        3
## 104 SYSTEM   AGIM      81     NA  2007        0        3        0        5
## 105 SYSTEM   ADGI      68     NA  2007        0        1        0        2
## 106 NEW HA    GIK     395     NA  2007        0        0        0        6
## 107 SYSTEM      L     239     NA  2007        0        1        0        5
## 108  NORTH      E      94     NA  2007        0        0        0        0
## 109  NORTH      E     222     NA  2007        0        1        0        0
## 110  NORTH      E     236     NA  2007        0        3        0        0
## 111    SWD     EG     161     NA  2007        0        1        0        4
## 112    PAC      E     122     NA  2007        0        0        0        0
## 113    PAC      E     119     NA  2007        0        1        0       16
## 114 DEARBO      E     207     NA  2007        0        5        0      131
## 115 SOUTHE      K     343     NA  2007        0        0        0        0
## 116    SOU      E     164     NA  2007        0        2        0        0
```

```
## 117    SOU      E     165     NA  2007        0        7        0       26
## 118    SWD      E     165     NA  2007        0        2        0        8
## 119    SOU      A     170     NA  2007        0        1        0        3
## 120 CENTRA      F     105     NA  2007        0        2        0       14
## 121    MAD      F     307     NA  2008        0        4        0        8
## 122    CEN      E     199     NA  2008        0        1        0       13
## 123    PAC      E     354     NA  2008        0        1        0       30
## 124    SOU     EI     168     NA  2008        0        8        0       30
## 125    SWD      E     202     NA  2008        0        3        0        2
## 126 SAN AN      E     230     NA  2008        0        1        0        0
## 127 SYSTEM      E     917     NA  2008        1        1       24       57
## 128    PAC     EO     162     NA  2008        0        3        0        4
## 129    NST   ADGP     527     NA  2008        0        3        0      135
## 130 SYSTEM      N     287     NA  2008        0        1        0        6
## 131 NASHVI      K     195     NA  2008        0        3        0        0
## 132 SOUTHE      O     242     NA  2008        0        1        0        0
## 133    CEN      E     195     NA  2009        0        0        0        4
## 134    CEN      E     150     NA  2009        0        1        0        9
## 135    SOU      G     185     NA  2009        0        0        0        9
## 136 GEORGI      J     205     NA  2009        0        3        0        0
## 137 SYSTEM    DGF      78     NA  2009        0        3        0       12
## 138 NEWARK   DEGM     139     NA  2009        0        1        0        9
## 139    SWD      G     221     NA  2009        0        1        0        7
## 140    SOU      E     112     NA  2009        0        0        0        5
## 141 CAMDEN      G    1201     NA  2009        0        0        0        5
## 142 SYSTEM   ACDI      51     NA  2009        0        3        0        1
## 143    SOU     EG     133     NA  2009        0        2        0        9
## 144 CHICAG      G    1059     NA  2009        0        0        0        0
## 145 FORT W      E     270     NA  2009        0        3        0        0
## 146    SOU   GIJM     197     NA  2009        0        2        0        2
## 147    PAC      E      99     NA  2009        0        0        0        3
## 148    CEN      G     161     NA  2009        0        0        0        1
## 149    CEN      G     137     NA  2009        0        2        0        0
## 150    SOU   EGIM     121     NA  2009        0        0        0        9
## 151    SOU    EIM     193     NA  2009        0        0        0        0
## 152    CEN  EFIJM     112     NA  2010        0        0        0       14
## 153 SAN AN      E     404     NA  2010        0        3        0        0
## 154   MADM      F     224     NA  2010        0        4        0        0
## 155    CEN      O     156     NA  2010        0        1        0        2
## 156    SOU      E     259     NA  2010        0        1        0       16
## 157    SWD     IM     195     NA  2010        0        1        0       29
## 158 JACKSO      E     110     NA  2010        0        2        0        0
## 159   GULF     GJ     120     NA  2010        0        6        0       15
## 160    NST      H     157     NA  2010        0        0        0        4
## 161    CEN      E     158     NA  2010        0        1        0       13
## 162 SYSTEM      E     298     NA  2010        1        0        0        3
## 163                   130     NA  2011        0        1        0       15
## 164                   113     NA  2011        0        2        0        6
## 165 TRANSP      G    1348     NA  2011        0        2        0       33
## 166                   126     NA  2011        0        0        0       22
## 167                   133     NA  2011        0        3        0       54
## 168    MAD  ABCDF      57     NA  2011        0        4        0        3
## 169 ALABAM     GJ     104     NA  2011        0        6        0        4
## 170                   190     NA  2011        0        3        0        4
```

```
## 171                  319     NA  2011        0       15        0       14
## 172                  276     NA  2011        0        3        0        0
## 173                  418     NA  2011        0        0        0       19
## 174 COMMUT    CGH    348     NA  2011        0        2        0       29
## 175                  123     NA  2011        1       12        4       89
## 176 SYSTEM     AD    161     NA  2011        0        1        0        5
## 177           <NA>   144     NA  2012        0        0        0        4
## 178           <NA>   191     NA  2012        0        4        0       12
## 179           <NA>   106     NA  2012        0        0        0        3
## 180           <NA>   144     NA  2012        0        0        0       10
## 181           <NA>   448     NA  2012        0        1        0        0
## 182           <NA>   394     NA  2012        0        0        0       15
## 183           <NA>   162     NA  2012        0        0        0        5
## 184           <NA>   234     NA  2012        0        4        0       11
## 185           <NA>   118     NA  2012        0        6        0       30
## 186           <NA>   205     NA  2012        0        5        0        0
## 187           <NA>   127     NA  2012        0        1        0        3
## 188           <NA>   568     NA  2012        0        0        0        0
## 189           <NA>   144     NA  2012        0        0        0        1
## 190           <NA>    75     NA  2012        0        5        0        6
## 191           <NA>   168     NA  2012        0        1        0        3
## 192           <NA>   128     NA  2012        0        1        0        6
## 193           <NA>   606     NA  2012        0        0        0        0
## 194           <NA>   205     NA  2012        0        1        0       45
## 195           <NA>   132     NA  2012        0        1        0       12
## 196           <NA>   304     NA  2012        0        1        0        2
## 197           <NA>   155     NA  2013        0        0        0        0
## 198           <NA>   142     NA  2013        0        1        0       22
## 199           <NA>   269     NA  2013        0        5        0       72
## 200           <NA>   160     NA  2013        0        2        0        0
## 201           <NA>   147     NA  2013        0        3        0        6
## 202           <NA>   835     NA  2013        0        0        0        3
## 203           <NA>   155     NA  2013        0        4        0        3
## 204           <NA>   147     NA  2013        0        0        0       22
## 205           <NA>   118     NA  2013        0        3        0        0
## 206           <NA>   201     NA  2013        0        4        0        8
## 207           <NA>   186     NA  2013        0        0        0        0
## 208           <NA>   115     NA  2013        0        0        0        0
## 209           <NA>   357     NA  2013        0       10        0       13
## 210           <NA>   251     NA  2013        0        9        4       73
## 211           <NA>   292     NA  2013        0        2        0        0
## 212           <NA>   492     NA  2013        0        0        0        0
## 213           <NA>   174     NA  2013        0        0        0       21
## 214           <NA>   193     NA  2013        0        4        0        3
## 215           <NA>   715     NA  2014        0        2        0       22
## 216           <NA>   338     NA  2014        0        1        0        5
## 217           <NA>   299     NA  2014        0        0        0        7
## 218           <NA>   200     NA  2014        0        1        0        4
## 219           <NA>   322     NA  2014        0        5        0        3
## 220           <NA>   177     NA  2014        0        0        0       15
## 221           <NA>   154     NA  2014        0        0        0        6
## 222           <NA>   142     NA  2014        0        0        0        0
## 223           <NA>   184     NA  2014        0        1        0        3
## 224           <NA>   187     NA  2014        0        0        0        3
```

```
## 225          <NA>     151     NA  2014        0        1        0        1
## 226          <NA>     166     NA  2015        0        0        0        1
## 227          <NA>     166     NA  2015        0        0        0        3
## 228          <NA>     247     NA  2015        0        4        0        9
## 229          <NA>     163     NA  2015        0        1        0        2
## 230          <NA>     363     NA  2015        0        4        0        0
## 231          <NA>     765     NA  2015        0        5        8      236
## 232          <NA>     141     NA  2015        0        2        5       38
## 233          <NA>     452     NA  2015        0        0        0        6
## 234          <NA>     686     NA  2015        0        4        0        0
## 235          <NA>     216     NA  2015        0        6        0        9
## 236          <NA>     506     NA  2015        0        0        0        0
## 237          <NA>     294     NA  2015        1        2        0       26
## 238          <NA>     184     NA  2015        0        0        0        0
## 239          <NA>     276     NA  2015        0        2        0       14
## 240          <NA>     120     NA  2015        0        0        0        7
## 241          <NA>     353     NA  2015        0        8        0       78
## 242          <NA>     181     NA  2015        0        5        0        6
## 243          <NA>     199     NA  2015        0        0        0        5
## 244          <NA>     554     NA  2015        0        3        0        0
## 245          <NA>     251     NA  2015        0        0        0        2
## 246          <NA>     313     NA  2015        0        0        0        7
## 247          <NA>     234     NA  2016        0        0        0       12
## 248          <NA>     118     NA  2016        0        0        0        3
## 249          <NA>      59     NA  2016        0        2        0        0
## 250          <NA>     266     NA  2016        0        2        0       58
## 251          <NA>      97     NA  2016        0        1        0        3
## 252          <NA>     168     NA  2016        0        3        0       10
## 253          <NA>     698     NA  2016        0        0        0        2
## 254          <NA>     439     NA  2016        2       13        0      110
## 255          <NA>     169     NA  2016        0        0        0        4
## 256          <NA>     162     NA  2016        0        0        0        2
## 257          <NA>     223     NA  2016        0        0        0        7
## 258          <NA>     394     NA  2016        0        0        0       22
## 259          <NA>     238     NA  2016        0        1        0        3
## 260          <NA>     160     NA  2016        0        0        0        4
## 261          <NA>     228     NA  2016        0        0        0        4
## 262          <NA>     635     NA  2016        0        0        0        9
## 263          <NA>     164     NA  2016        0        3        0      140
## 264          <NA>     125     NA  2016        0        0        0        4
## 265   <NA>   <NA>     400     NA  2017        0        5        3       74
## 266   <NA>   <NA>     462     NA  2017        0        2        0       14
## 267   <NA>   <NA>     301     NA  2017        0        0        0       22
## 268   <NA>   <NA>     465     NA  2017        0        0        0        0
## 269   <NA>   <NA>     189     NA  2017        0        4        0        4
## 270   <NA>   <NA>     134     NA  2017        0        1        0        2
## 271   <NA>   <NA>     244     NA  2017        0        1        0        6
## 272   <NA>   <NA>     297     NA  2017        0        0        0        9
## 273   <NA>   <NA>     178     NA  2017        0        0        0        4
## 274   <NA>   <NA>     300     NA  2017        0        0        0        1
## 275   <NA>   <NA>     144     NA  2017        0        0        0        0
## 276   <NA>   <NA>     135     NA  2017        0        1        0        6
## 277   <NA>   <NA>     226     NA  2017        0        1        0        4
## 278   <NA>   <NA>     244     NA  2017        0        6        0      107
```

```
## 279   <NA>   <NA>     645     NA  2017        0        0       0       3
## 280   <NA>   <NA>     229     NA  2017        0        0       0       0
## 281   <NA>   <NA>     335     NA  2017        0        0       0       3
## 282           <NA>     326     NA  2018        0        4       0       4
## 283           <NA>     181     NA  2018        0        3       0       7
## 284           <NA>     198     NA  2018        0        0       0       5
## 285           <NA>     113     NA  2018        0        1       0       4
## 286           <NA>     237     NA  2018        0        0       0       6
## 287           <NA>     511     NA  2018        2        7       0     126
## 288           <NA>     155     NA  2018        0        0       0       2
## 289           <NA>     442     NA  2018        0        0       0       4
## 290           <NA>     175     NA  2018        0        0       0       0
## 291           <NA>     222     NA  2018        0        1       0       7
## 292           <NA>     173     NA  2018        0        3       0       1
## 293           <NA>     202     NA  2018        0        3       0       0
## 294           <NA>     141     NA  2018        0        2       0       1
## 295           <NA>     157     NA  2018        0        3       0       2
## 296           <NA>     121     NA  2019        0        0       0       0
## 297           <NA>     239     NA  2019        0        0       0      21
## 298           <NA>     215     NA  2019        0        1       0       8
## 299           <NA>     175     NA  2019        0        3       0       1
## 300           <NA>     118     NA  2019        0        0       0       2
## 301           <NA>     412     NA  2019        0        3       0       0
## 302           <NA>     603     NA  2019        0        3       0       2
## 303           <NA>     146     NA  2019        0        0       0       6
## 304           <NA>      91     NA  2019        0        0       0       3
## 305           <NA>     157     NA  2019        0        6       0       4
## 306           <NA>     415     NA  2019        0        2       0       0
## 307           <NA>     313     NA  2019        0        4       0       4
## 308           <NA>     171     NA  2019        0        0       0       7
##     OTHERKLD OTHERINJ              COUNTY CNTYCD ALCOHOL DRUG DUMMY7 PASSTRN
## 1          0        0               ADAMS      3       0    0     NA       Y
## 2          0        0           ONONDAGA     67       0    0     NA       Y
## 3          7        0                KERN     29      NA   NA     NA       Y
## 4          0        0            NEW YORK     61      NA   NA     NA       N
## 5          0        0              TOOELE     45       0    0     NA       Y
## 6          0        0            HARRISON    203       0    0     NA       Y
## 7          0        3             DE WITT    123      NA   NA     NA       N
## 8          0        0                LONG    183      NA   NA     NA       Y
## 9          0        0                IRON     93      NA   NA     NA       Y
## 10         0        0              BERGEN      3      NA   NA     NA       Y
## 11         2        0              MERCED     47      NA   NA     NA       Y
## 12         0        5                LAKE     95      NA   NA     NA       N
## 13         0        0            FRANKLIN     47      NA   NA     NA       Y
## 14         1      999                WARD    101       0    0     NA       N
## 15         0        2                KERN     29      NA   NA     NA       N
## 16         0        0             ALAMEDA      1      NA   NA     NA       Y
## 17         3        1            MORRISON     97      NA   NA     NA       N
## 18         0        0          MONTGOMERY     31       0    0     NA       Y
## 19         0        0                POLK    105      NA   NA     NA       Y
## 20         0        0              QUEENS     81       0    0     NA       Y
## 21         0        0           BALTIMORE      5      NA   NA     NA       Y
## 22         0        0                KANE     89       0    0     NA       Y
## 23         0        0           BALTIMORE      5      NA    0     NA       Y
```

```
## 24      2       2          CHEROKEE    73     NA   NA    NA     N
## 25      0       0            JASPER    53     NA   NA    NA     Y
## 26      0       2            ORANGE    59     NA   NA    NA     Y
## 27      0       0            PUTNAM   107      0    0    NA     Y
## 28      0       1         JEFFERSON    73     NA   NA    NA     Y
## 29      0       0           HANOVER    85     NA   NA    NA     N
## 30      0       1       CONTRA COSTA    13     NA   NA    NA     Y
## 31      1       0           LIBERTY   179     NA   NA    NA     Y
## 32      0       0        SACRAMENTO    67     NA   NA    NA     N
## 33      0       1             WAYNE   223     NA   NA    NA     Y
## 34      3       1             BOONE    15     NA   NA    NA     N
## 35      0       1            HUDSON    17      0    0    NA     Y
## 36      0       0            HUDSON    17      0    0    NA     Y
## 37      1       0       LOS ANGELES    37     NA   NA    NA     Y
## 38      0       0       WESTCHESTER   119      0    0    NA     N
## 39      0       0              COOK    31      0    0    NA     Y
## 40      1       0    PRINCE WILLIAM   153     NA   NA    NA     Y
## 41      1       0           STUTSMAN    93     NA   NA    NA     N
## 42      0       0      PHILADELPHIA   101      0    1    NA     Y
## 43      0       0         WYANDOTTE   209      0    0    NA     Y
## 44      0       0              COOK    31      0    0    NA     Y
## 45      0       0             YAZOO   163      0    0    NA     Y
## 46      0       0          NEW YORK    61      0    0    NA     Y
## 47      1       3          NEW HAVEN     9      0    0    NA     N
## 48      0       6              UNION   145     NA   NA    NA     N
## 49      1       0         ST BERNARD    87     NA   NA    NA     N
## 50      2      78              BEXAR    29      1    0    NA     N
## 51      2       0           HARTFORD     3     NA   NA    NA     Y
## 52      1       1          WILBARGER   487     NA   NA    NA     N
## 53      4       0            DECATUR    87     NA   NA    NA     N
## 54      0       0           MONMOUTH    25      0    0    NA     N
## 55      0       0       WESTCHESTER   119     NA   NA    NA     Y
## 56      0       0             OTTAWA   123     NA   NA    NA     Y
## 57      3       1              NASH   127     NA   NA    NA     Y
## 58      1       1             MEDINA   325     NA   NA    NA     N
## 59      1       0              DODGE    27     NA   NA    NA     N
## 60      0       0           SKAMANIA    59      0   NA    NA     Y
## 61      4       0          TANGIPAHOA   105     NA   NA    NA     Y
## 62      0       0                MESA    77     NA   NA    NA     Y
## 63      2       0                WAKE   183     NA   NA    NA     Y
## 64      0       2             VENTURA   111     NA   NA    NA     Y
## 65      0       0          JEFFERSON    99     NA   NA    NA     Y
## 66      1       0               GRAND    19     NA   NA    NA     Y
## 67      1       0         MISSISSIPPI    93     NA   NA    NA     N
## 68      0       0         SOUTHAMPTON   175      0    0    NA     N
## 69      0      12              COOK    31     NA   NA    NA     Y
## 70      0       0              COOK    31      0    0    NA     Y
## 71      0       4              COOK    31     NA   NA    NA     Y
## 72      8     291             AIKEN     3      0    0    NA     N
## 73      0       0       LOS ANGELES    37     NA   NA    NA     Y
## 74      0       1         BURLINGTON     5     NA   NA    NA     Y
## 75      1      45              MILLER    91      0    0    NA     N
## 76      0       0            WASATCH    51     NA   NA    NA     Y
## 77      0       1           COLORADO    89     NA   NA    NA     Y
```

```
## 78          1          0        HILLSBOROUGH     57      NA   NA      NA        Y
## 79          0          0             LINCOLN     43      NA   NA      NA        Y
## 80          0          0           JEFFERSON    245      NA   NA      NA        Y
## 81          0          8         PALM BEACH     99      NA   NA      NA        Y
## 82          3          1           ST CLAIR    163      NA   NA      NA        N
## 83          0          1               COOK     31      NA   NA      NA        Y
## 84          0          0     PRINCE WILLIAM    153      NA   NA      NA        Y
## 85          2          2             PLACER     61       0    0      NA        N
## 86          1          0           CANADIAN     17      NA   NA      NA        N
## 87          0          0            NORFOLK     21      NA   NA      NA        Y
## 88          0          0         MONTGOMERY     91       0    0      NA        Y
## 89          1          1         POTTAWATOMIE    149      NA   NA      NA        N
## 90          0          1           COSTILLA     23       0    0      NA        Y
## 91          0          1             MOBILE     97      NA   NA      NA        N
## 92          0          0               BOYD     19       0    0      NA        N
## 93          0          4           GARFIELD     45      NA   NA      NA        N
## 94          3          2             POTTER    375      NA   NA      NA        N
## 95          0          0             ACADIA      1      NA   NA      NA        Y
## 96          0          0          ST CHARLES     89      NA   NA      NA        Y
## 97          0          4            MCLENNAN    309      NA   NA      NA        N
## 98          0         34            FRANKLIN     55       0    0      NA        N
## 99          0          0               COOK     31      NA   NA      NA        Y
## 100         4          0             COWLITZ     15      NA   NA      NA        Y
## 101         1          0             JACKSON     75      NA   NA      NA        Y
## 102         1          0            MCCURTAIN     89       0    0      NA        N
## 103         0          0            NEW HAVEN      9      NA   NA      NA        Y
## 104         0          1           MONTGOMERY     91       0    0      NA        Y
## 105         1          0           MONTGOMERY     91       0    0      NA        Y
## 106         0          0            MIDDLESEX     17       0    1      NA        Y
## 107         0          0              MARENGO     91       0    0      NA        Y
## 108         0         22                CROSS     37       0    0      NA        N
## 109         1          3            CRAIGHEAD     31       0    0      NA        N
## 110         1          0          SCOTTS BLUFF    157      NA   NA      NA        N
## 111         0          0     SAN BERNARDINO     71      NA   NA      NA        Y
## 112         6          0          STANISLAUS     99      NA   NA      NA        Y
## 113         0          1              SOLANO     95      NA   NA      NA        Y
## 114         0          0               COOK     31      NA    0      NA        Y
## 115         0          4             FORREST     35      NA   NA      NA        N
## 116         4          0                POLK    105      NA   NA      NA        Y
## 117         1          0        HILLSBOROUGH     57      NA   NA      NA        Y
## 118         0          0                KERN     29      NA   NA      NA        Y
## 119         0          0             CHATHAM     51      NA   NA      NA        Y
## 120         0          0               COOK     31      NA   NA      NA        Y
## 121         0          0     WASHINGTON, DC      1       0    0      NA        Y
## 122         0          0           MACOUPIN    117      NA   NA      NA        Y
## 123         0          1               KINGS     31      NA   NA      NA        Y
## 124         0          2               COPIAH     29      NA   NA      NA        Y
## 125         0          1               HARRIS    201      NA   NA      NA        Y
## 126         0          3                COMAL     91      NA   NA      NA        N
## 127         0          0          LOS ANGELES     37       0    0      NA        Y
## 128         0          0              SOLANO     95      NA   NA      NA        Y
## 129         0          0             NORFOLK     21      NA   NA      NA        Y
## 130         0          0          SAN JOAQUIN     77       0    0      NA        Y
## 131         0          1               SHELBY    157      NA   NA      NA        N
```

```
## 132      0       3          LAUDERDALE     75      0    0     NA       N
## 133      0       0                COOK     31     NA   NA     NA       Y
## 134      0       1           MACOUPIN     117     NA   NA     NA       Y
## 135      0       0         MECKLENBURG    119     NA   NA     NA       Y
## 136      0       1              MONROE    207     NA   NA     NA       Y
## 137      0       0        PHILADELPHIA    101     0    0     NA       Y
## 138      0       0              CAMDEN     7      NA   NA     NA       Y
## 139      0       1               COOKE     97     NA   NA     NA       Y
## 140      0       0            CABARRUS     25     NA   NA     NA       Y
## 141      0       0              CAMDEN     7      NA   NA     NA       Y
## 142      0       3        PHILADELPHIA    101     NA   NA     NA       Y
## 143      0       0                PIKE    113     NA   NA     NA       Y
## 144      1      11           WINNEBAGO    201     0    0     NA       N
## 145      0       1               FALLS    145     NA   NA     NA       N
## 146      0       2           ST MARTIN     99     NA   NA     NA       Y
## 147      0       1        CONTRA COSTA     13     NA   NA     NA       Y
## 148      3       2            LA SALLE     99     NA   NA     NA       Y
## 149      2       0              ELKHART    39     0    0     NA       Y
## 150      0       0           PALM BEACH    99     NA   NA     NA       Y
## 151      0       4           CUMBERLAND    51     NA   NA     NA       Y
## 152      0       0              PULASKI    119     NA   NA     NA       Y
## 153      0       1            LA SALLE    283     NA   NA     NA       N
## 154      0       0      WASHINGTON, DC      1     0    0     NA       N
## 155      0       1               WAYNE    163     NA   NA     NA       Y
## 156      0       0            ALAMANCE      1     NA   NA     NA       Y
## 157      0       0                KERN     29     NA   NA     NA       Y
## 158      3       0              PUTNAM    107     NA   NA     NA       Y
## 159      0       0              ACADIA      1     NA   NA     NA       Y
## 160      0       0              ONEIDA     65     NA   NA     NA       Y
## 161      0       0             MADISON    119     NA   NA     NA       Y
## 162      0       0         LOS ANGELES     37     NA   NA     NA       Y
## 163      0       0                COOK     31     0    0     NA       Y
## 164      1       0                YORK     31     NA   NA     NA       Y
## 165      0       0              HUDSON     17     0    0     NA       Y
## 166      0       0           STANISLAUS    99     NA   NA     NA       Y
## 167      0       0        CONTRA COSTA     13     NA   NA     NA       Y
## 168      0       0          NEW CASTLE      3     NA   NA     NA       Y
## 169      0       1          ST TAMMANY    103     NA   NA     NA       Y
## 170      2       0                COOK     31     NA   NA     NA       Y
## 171      0       0               DUNDY     57     NA   NA     NA       Y
## 172      0       1           RED RIVER     81     NA   NA     NA       N
## 173      0       0             BROWARD     11     NA   NA     NA       Y
## 174      1       0                COOK     31     NA   NA     NA       Y
## 175      1       0            CHURCHILL      1     NA   NA     NA       Y
## 176      1       1             SUFFOLK    103     NA   NA     NA       Y
## 177      0       1                KING     33     NA   NA     NA       Y
## 178      0       1             JACKSON     75     NA   NA     NA       Y
## 179      1       0                YAZOO    163     NA   NA     NA       Y
## 180      0       0         LOS ANGELES     37     NA   NA     NA       Y
## 181      0     384          GLOUCESTER     15     0    0     NA       N
## 182      3       1           SACRAMENTO     67     0    0     NA       Y
## 183      1       0            SAN DIEGO     73     NA   NA     NA       Y
## 184      0       0              BERRIEN     21     0    0     NA       Y
## 185      1       0               ORANGE     95     NA   NA     NA       Y
```

```
## 186        0        0                COOK     31      NA   NA      NA       N
## 187        0        1                HINDS    49      NA   NA      NA       Y
## 188        4       24             MIDLAND    329     NA   NA      NA       N
## 189        1        2               TRAVIS    453     NA   NA      NA       Y
## 190        0        0         PHILADELPHIA    101      0    0      NA       Y
## 191        0        1               TULARE    107     NA   NA      NA       Y
## 192        1        0              TARRANT    439     NA   NA      NA       Y
## 193        0        4            IBERVILLE     47      0    0      NA       N
## 194        0        1                KINGS     31      NA   NA      NA       Y
## 195        0        0             GUILFORD     81      NA   NA      NA       Y
## 196        0        4            SAN DIEGO     73      NA   NA      NA       Y
## 197        0        4              TARRANT    439     NA   NA      NA       N
## 198        1        0             RANDOLPH     83      NA   NA      NA       Y
## 199        0        0             FAIRFIELD     1      0    0      NA       Y
## 200        1        1             JEFFERSON    245     NA   NA      NA       N
## 201        0        1               PASSAIC     31      NA   NA      NA       Y
## 202        0        2            BURLINGTON      5      NA   NA      NA       Y
## 203        0        0                BERGEN      3      NA   NA      NA       Y
## 204        0        0           LOS ANGELES     37      0    0      NA       Y
## 205        1        0              POINSETT    111     NA   NA      NA       N
## 206        1        0                  TODD    153     NA   NA      NA       Y
## 207        0        5                COWETA     77      NA   NA      NA       N
## 208        2        2             JEFFERSON    101     NA   NA      NA       N
## 209        0        0                HOLMES     51      NA   NA      NA       Y
## 210        0        0                 BRONX      5      0    0      NA       Y
## 211        0        5                 SCOTT    201     0    0      NA       N
## 212        0        7             BALTIMORE      5      NA   NA      NA       N
## 213        0        0           SPARTANBURG     83      NA   NA      NA       Y
## 214        0        0               WHARTON    481     NA   NA      NA       Y
## 215        0        0 SKAGWAY-HOONAH-ANGOO      NA     NA   NA      NA       Y
## 216        0        1              HARTFORD      3      NA   NA      NA       Y
## 217        1        0            PALM BEACH     99      NA   NA      NA       Y
## 218        0        1                MERCED     47      NA   NA      NA       Y
## 219        0        1             TANGIPAHOA    105     NA   NA      NA       Y
## 220        0        1                  WHITE    181     NA   NA      NA       Y
## 221        0        0                  BEXAR     29      NA   NA      NA       Y
## 222        4        1               FAYETTE     51      NA   NA      NA       N
## 223        0        0                  COOK     31      NA   NA      NA       Y
## 224        1        0                MADERA     39      NA   NA      NA       Y
## 225        3        0                BRISTOL      5      NA   NA      NA       Y
## 226        3        0              GONZALES    177     NA   NA      NA       Y
## 227        0        1           GREENSVILLE     81      NA   NA      NA       Y
## 228        0        0            WASHINGTON     23      NA   NA      NA       Y
## 229        1        0             JEFFERSON     73      NA   NA      NA       Y
## 230        0        0                 COOKE     97      0    0      NA       N
## 231        0        0         PHILADELPHIA    101      0    0      NA       Y
## 232        1        0           WESTCHESTER    119     0    0      NA       Y
## 233        1        1            BURLINGTON      5      NA   NA      NA       Y
## 234        0        0                GEORGE     39      NA   NA      NA       N
## 235        1        0             TANGIPAHOA    105     NA   NA      NA       Y
## 236        0        4           LOS ANGELES     37      NA   NA      NA       N
## 237        0        0                VENTURA    111     NA   NA      NA       Y
## 238        0      197                BLOUNT      9      0    0      NA       N
## 239        0        1                  WILL    197     0    0      NA       Y
```

```
## 240     0     1          KERSHAW     55     NA     NA     NA     Y
## 241     0     1          HALIFAX     83     NA     NA     NA     Y
## 242     0     1          MCHENRY     49     NA     NA     NA     Y
## 243     0     1          LEFLORE     83     NA     NA     NA     Y
## 244     1     0            DOOLY     93     NA     NA     NA     N
## 245     2     0           FRESNO     19     NA     NA     NA     Y
## 246     0     0           ORANGE     95     NA     NA     NA     Y
## 247     0     0           MARION     47     NA     NA     NA     Y
## 248     3     0          MADISON     89     NA     NA     NA     Y
## 249     0     2           MOBILE     97     NA     NA     NA     N
## 250     0     0             GRAY     69      0      0     NA     Y
## 251     0     0     TALLAHATCHIE    135     NA     NA     NA     Y
## 252     1     0            HOLMES     51     NA     NA     NA     Y
## 253     1     1        BURLINGTON      5      0      0     NA     Y
## 254     0     0          DELAWARE     45      0      3     NA     Y
## 255     3     0           MADERA     39     NA     NA     NA     Y
## 256     5     1        LAS ANIMAS     71     NA     NA     NA     Y
## 257     0     0       HILLSBOROUGH     57     NA     NA     NA     Y
## 258     0     1        PALM BEACH     99     NA     NA     NA     Y
## 259     0     0            DALLAS    113     NA     NA     NA     Y
## 260     1     0          IROQUOIS     75     NA     NA     NA     Y
## 261     0     1           ALAMEDA      1     NA     NA     NA     Y
## 262     0     0           ALAMEDA      1     NA     NA     NA     Y
## 263     1    15            HUDSON     17      0      0     NA     Y
## 264     0     0              WILL    197     NA     NA     NA     Y
## 265     0    11            PIERCE     53      0      0     NA     Y
## 266     0     0            PIERCE     53      0      0     NA     Y
## 267     0     0     CHESTERFIELD     25     NA     NA     NA     Y
## 268     0     6          BEDFORD      9      0      0     NA     N
## 269     0     0       WESTCHESTER    119      0      0     NA     Y
## 270     0     1              KERN     29     NA     NA     NA     Y
## 271     0     0              POLK    105     NA     NA     NA     Y
## 272     0     0           OSCEOLA     97     NA     NA     NA     Y
## 273     0     0              COOK     31     NA     NA     NA     Y
## 274     0     8             SWAIN    173      0      0     NA     Y
## 275     0     7            HARRIS    201     NA     NA     NA     N
## 276     0     0          NEW YORK     61     NA     NA     NA     Y
## 277     0     0          NEW YORK     61     NA     NA     NA     Y
## 278     0     0             KINGS     47      0      0     NA     Y
## 279     1     0             ADAMS      1      0      0     NA     Y
## 280     4    41          HARRISON     47     NA     NA     NA     N
## 281     1     0        HIGHLANDS     55     NA     NA     NA     Y
## 282     1     2         ALBEMARLE      3      0      0     NA     Y
## 283     1     0        TANGIPAHOA    105     NA     NA     NA     Y
## 284     0     0         FORT BEND    157     NA     NA     NA     Y
## 285     2     0           TARRANT    439     NA     NA     NA     Y
## 286     0     0          HARRISON    203     NA     NA     NA     Y
## 287     0     0         LEXINGTON     63      0      0     NA     Y
## 288     0     3             EATON     45     NA     NA     NA     Y
## 289     0     0           CHATHAM     51     NA     NA     NA     Y
## 290     3     1            FULTON    121     NA     NA     NA     N
## 291     1     0            BUREAU     11     NA     NA     NA     Y
## 292     0     1         LANCASTER     71     NA     NA     NA     Y
## 293     1     0         MIDDLESEX     23     NA     NA     NA     Y
```

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## 294        0        1              BERGEN      3      NA   NA      NA       Y
## 295        0        0              PUTNAM    107      NA   NA      NA       Y
## 296        0        4             EL PASO    141      NA   NA      NA       Y
## 297        0        1             LIBERTY    291      NA   NA      NA       Y
## 298        1        0               HINDS     49      NA   NA      NA       Y
## 299        0        0             BERRIEN     21      NA   NA      NA       Y
## 300        3        0        CONTRA COSTA     13      NA   NA      NA       Y
## 301        1        0              SONOMA     97      NA   NA      NA       Y
## 302        0        0            DUTCHESS     27      NA   NA      NA       Y
## 303        0        0                LAKE     89      NA   NA      NA       Y
## 304        0        1               ADAMS      1       0    0      NA       Y
## 305        0        1               YAZOO    163      NA   NA      NA       Y
## 306        0        4           JEFFERSON    163       0    0      NA       N
## 307        3        0              NASSAU     59      NA   NA      NA       Y
## 308        1        0                WILL    197      NA   NA      NA       Y
##     SSB1        SSB2
## 1              <NA>
## 2              <NA>
## 3              <NA>
## 4              <NA>
## 5              <NA>
## 6              <NA>
## 7              <NA>
## 8              <NA>
## 9              <NA>
## 10             <NA>
## 11             <NA>
## 12             <NA>
## 13             <NA>
## 14             <NA>
## 15             <NA>
## 16             <NA>
## 17             <NA>
## 18             <NA>
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## 24             <NA>
## 25             <NA>
## 26             <NA>
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## 28             <NA>
## 29             <NA>
## 30             <NA>
## 31             <NA>
## 32             <NA>
## 33             <NA>
## 34             <NA>
## 35             <NA>
## 36             <NA>
## 37             <NA>
## 38             <NA>
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## 45             <NA>
## 46             <NA>
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## 69             <NA>
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## 73             <NA>
## 74             <NA>
## 75             <NA>
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## 77             <NA>
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## 79             <NA>
## 80             <NA>
## 81             <NA>
## 82             <NA>
## 83             <NA>
## 84             <NA>
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## 86             <NA>
## 87             <NA>
## 88             <NA>
## 89             <NA>
## 90             <NA>
## 91             <NA>
## 92             <NA>
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## 93             <NA>
## 94             <NA>
## 95             <NA>
## 96             <NA>
## 97             <NA>
## 98             <NA>
## 99             <NA>
## 100            <NA>
## 101            <NA>
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## 142            <NA>
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## 144            <NA>
## 145            <NA>
## 146            <NA>
```

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## 162             <NA>
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## 174             <NA>
## 175  CWR        <NA>
## 176             <NA>
## 177  CWR        <NA>
## 178  CWR        <NA>
## 179  CWR        <NA>
## 180  CWR        <NA>
## 181  OTH        <NA>
## 182  CWR        <NA>
## 183  CWR        <NA>
## 184  CWR        <NA>
## 185  CWR        <NA>
## 186  CWR        <NA>
## 187  OTH        <NA>
## 188  CWR        <NA>
## 189  CWR        <NA>
## 190  CWR        <NA>
## 191  CWR        <NA>
## 192  CWR        <NA>
## 193  OTH        <NA>
## 194  CWR        <NA>
## 195  CWR        <NA>
## 196  CWR        <NA>
## 197  CWR        <NA>
## 198  OTH        <NA>
## 199  CWR        <NA>
## 200  CWR        <NA>
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## 201  CWR        <NA>
## 202  CWR        <NA>
## 203  CWR        <NA>
## 204  CWR        <NA>
## 205  CWR        <NA>
## 206  CWR        <NA>
## 207  CWR        <NA>
## 208  OTH        <NA>
## 209  CWR        <NA>
## 210  CWR        <NA>
## 211  CWR        <NA>
## 212  CWR        <NA>
## 213  CWR        <NA>
## 214  CWR        <NA>
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## 216  CWR        <NA>
## 217  CWR        <NA>
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## 221  CWR        <NA>
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## 224  CWR        <NA>
## 225  CWR        <NA>
## 226  CWR        <NA>
## 227  OTH        <NA>
## 228  CWR        <NA>
## 229  OTH        <NA>
## 230  CWR        <NA>
## 231  CWR        <NA>
## 232  CWR        <NA>
## 233  OTH        <NA>
## 234  CWR        <NA>
## 235  CWR        <NA>
## 236  CWR        <NA>
## 237  CWR        <NA>
## 238  OTH        <NA>
## 239  CWR        <NA>
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## 245  CWR        <NA>
## 246  OTH        <NA>
## 247  CWR
## 248  CWR
## 249  CWR 000-000-000
## 250  CWR
## 251  CWR
## 252  CWR
## 253  CWR 000-000-000
## 254  CWR
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## 255  CWR
## 256  CWR
## 257  CWR
## 258  CWR
## 259  CWR
## 260  CWR
## 261  CWR
## 262  CWR 000-000-000
## 263  CWR
## 264  CWR
## 265  CWR
## 266  CWR
## 267  CWR
## 268  CWR 000-000-000
## 269  CWR 000-000-000
## 270  CWR
## 271  CWR
## 272  CWR
## 273  OTH
## 274  OTH 000-000-000
## 275  CWR 000-000-000
## 276  CWR
## 277  CWR
## 278  CWR 000-000-000
## 279  CWR 000-000-000
## 280  CWR 000-000-000
## 281  CWR
## 282  CWR
## 283  CWR
## 284  CWR
## 285  CWR 000-000-000
## 286  CWR
## 287  CWR
## 288  CWR
## 289  CWR
## 290  CWR 000-000-000
## 291  CWR
## 292  CWR
## 293  CWR
## 294  CWR
## 295  CWR
## 296  CWR
## 297  CWR
## 298  CWR
## 299  CWR
## 300  CWR
## 301  CWR 000-000-000
## 302  CWR 000-000-000
## 303  CWR
## 304  CWR 000-000-000
## 305  CWR
## 306  CWR 000-000-000
## 307  CWR 000-000-000
## 308  CWR
```

```
##
## 1     TRAIN NO.#5 WITH ENGS 140/141 AND 16 CARS DERAILED BOTH ENGINE UNITS AND 11 CARS AT MP419.9, 2
## 2                                                TRAIN 286 STRUCK REAR OF CSX FREIGHT EAST OF SYRACUS
## 3                                                          TRAIN 714 STRUCK A MINVAN NEAR SHAFTE
## 4     AT APPROXIMATELY 8:48 AM, PATH POLICE COMMAND WAS NOTIFIED THAT A PLANE STRUCK THE WORLD TRADE
## 5     TRAIN NO.#5 WITH ENGS 143/149 AND 15 CARS STRUCK UPRR COAL TRAIN CBY SR-12 WITH 31 CARS, CAUSI
## 6     TRAIN NO.#21 WITH ENGS 163/151 AND 12 CARS WAS INVOLVED IN A COLLISION WITH UNION PACIFIC FREI
## 7     18 WHEELER PULLED ONTO TRACK FROM E-W AND STOPPED ON TOP OF MAIN LINE.  TRAIN STRUCK TRAILER JU
## 8      TRAIN NO.#91 WITH ENGS 158/176 AND 15 CARS STRUCK A LOWBOY TRACTOR-TRAILER AT MP A542.01, COU
## 9     TRAIN NO.#21 WITH ENGS 131/76 AND 19 CARS DERAILED BOTH ENGINES AND 7 CARS AT MP105.  THE DERA
## 10     WESTBOUND COMMUTER TRAIN CONSISTING OF ONE (1) ENGINE AND FOUR (4) COACHES DERAILED ACCOUNT G
## 11    TRAIN 703 STRUCK VEHICLE EAST OF MERCED, CA.  THE GATES DID NOT WORK BECAUSE THEY WERE DISABLE
## 12    ON MARCH 26, 2001 NORTHBOUND TRAIN TKEN 9435 PULLING THREE LOADED HAZMAT CARS STRUCK A TENNESS
## 13    ON DECEMBER 7, 2002, WHITEWATER VALLEY RAILROAD PASSENGER EXCURSION TRAIN 25X DEPARTED CONNERS
## 14    CP TRAIN 292-16 (86 LOADS, 26 EMPTIES, 12,342 EGT) INCLUDING 15 LOADS ANHYDROUS AMMONIA; 10 LO
## 15    TRAIN P-CHIRIC1-03 STRUCK AN OCCUPIED SEMI-TRUCK AT A PROTECTED CROSSING.  CAUSE HIGHWAY USER
## 16    TRAIN 14, WITH 3 ENGINES AND 13 CARS, DERAILED NORTH OF SAN JOSE, CA, AFTER STRIKING A FREIGHT
## 17    TRAIN Z-CHCLAU9-02 WAS TRAVELING WESTBOUND AT MP 115.7 WHEN MOTORIST TRAVELING NORTHBOUND WENT
## 18    TRAIN NO.#30 OPERATING WITH ENGS 154/74 AND 13 CARS DERAILED 11 CARS AT MP BA11.8.  IT WAS DET
## 19    TRAIN NO.#92 OPERATING WITH ENG 10 AND 12 CARS STRUCK A TRACTOR-TRAILER CARRYING A LARGE BULLD
## 20    TRAIN 6721 PULLING INTO #2 STATION JAMAICA WITH TRAIN 8017 IN FRONT ON SAME TRACK.  TRAIN 8017
## 21                                AMTRAK TRAIN #90 STRUCK MARC COMMUTER TRAIN #437 OUTSIDE OF BALTIMOR
## 22    ASUB1235:  METRA SUBURBAN TRAINS 1235 AND 1270 HEAD ON COLLISION AT MP 36.75, CTC NORTH HILL Y
## 23                AMTRAK TRAIN #90 STRUCK MARC TRAIN #437 AT CHARLES INTERLOCKING OUTSIDE OF BALTIMOR
## 24    VEHICLE FAILED TO STOP AT CROSSING AND WAS STRUCK BY TRAIN QBLNL-29, RESULTING IN 2 INJURIES A
## 25    TRAIN NO.#97 WITH ENG 50 AND 10 CARS DERAILED THE LOCOMOTIVE WITH ALL CARS, UPRIGHT AND INLINE
## 26                                  BNSF ENGINEER RAN SIGNAL AND COLLIDED WITH HEAD-ON METROLINK TRAI
## 27                               AUTO TRAIN NO.#52 WITH ENGS 834/843 AND 40 CARS DERAILED 21 CARS AT MP
## 28     TRAIN NO.#19 WITH ENGS 38/81 AND 14 CARS STRUCK AN 18-WHEEL TRACTOR-TRAILER AT MP157.20, INDU
## 29    RAIL INSPECTION EQUIPMENT, GRMS-1, OPERATING AS W00407, DERAILED TO NORTH SIDE OF TRACK CAUSIN
## 30    TRAIN NO.#520 OPERATING CAB CAR 8305 IN THE LEAD, 3 CARS, AND ENGINE 464 IN THE REAR, STRUCK A
## 31    TRAIN NO.#91 OPERATING WITH ENG 199 AND 10 CARS STRUCK A TRUCK LOADED WITH PLYWOOD AT MP A522.3
## 32    EQUIPMENT FROM TRAINS 717 AND 715 WERE COUPLED TOGETHER AND SITTING IN THE AMTRAK DEPOT ON MAI
## 33       TRAIN NO.#22 OPERATING WITH LOCOMOTIVE 169 AND 8 CARS STRUCK A TRACTOR-TRAILER TRUCK AT MP13
## 34    61AT8 SOUTHBOUND AT 47 MPH APPROACHING MAHRER RD CROSSING, STRUCK 1991 FORD PROBE THAT HAD STA
## 35    AT APPROXIMATELY 6:36PM A TRAIN STRUCK THE BUMPING BLOCK WHILE PLATFORMING ON TRACK 1 AT THE H
## 36    EASTBOUND COMMUTER TRAIN CONSISTING OF SIX (6) ELECTRIC MOTOR UNITS AND SIX (6) ELECTRIC TRAIL
## 37                                      VEHICLE DROVE AROUND CROSSING GATES AND WAS STRUCK BY TRAI
## 38    DUE TO POWER FAILURE IN NORTHEAST TRAIN#1342 BECAME DISABLED/DEAD EAST OF NEW ROCHELLE STATION
## 39    H 699 - TRAIN FAILED TO COMPLY WITH MANDATORY SPEED REDUCTION THROUGH CROSSOVER (TRAIN WAS TRA
## 40    TRAIN 20 ENGINES 59/72 WITH 10 CARS STRUCK A DUMP TRUCK ON THE NS PIEDMONT DIVISION AT BRISTOW
## 41    THE L TWI8401 16A STRUCK A USED OIL TRUCK AT THE CROSSING LOCATED JUST EAST OF THE SWITCH AT D
## 42     PIN UP CREW, CONDUCTOR, AND ENGINEER WERE SHOVING 11 CARS MU NUMBERS: 154, 153, 126, 125, 360
## 43    TRAIN NO.#4 OPERATING WITH LOCOMOTIVES 94/43/86/839 AND 28 CARS DERAILED ALL 4 LOCOMOTIVES AND
## 44    LITE UNIT METX164 FROM TRAIN M608-26 STRUCK UNIT METX131 ON PASSENGER TRAIN M611-26 AT THE LAK
## 45    TRAIN 58 WITH 1 ENGINE AND 9 CARS DERAILED NEAR FLORA, MS. IT WAS FOUND THAT ON 1/29/04 A 2-1/1
## 46    TRAIN 183 WITH E/929 AND 6 CARS, OPERATING IN LINE 2, COLLIDED WITH THE REAR OF STOPPED LIRR T
## 47    AMTRAK SHORE LINE EAST TEST EXTRA WITH ENGINE 6695 AND 3 CARS STRUCK 3 PIECES OF CONTRACTOR EQU
## 48    CLIPPED REAR END OF TRACK AT CROSSING. TRUCK DRIVER CLAIMS WHEN TRAIN HIT HIS TRUCK IT KNOCKED
## 49    AN20 STRUCK A LOADED FUEL TRUCK AT MP 3.7 LS.  TRAILER EXPLODED ON IMPACT.  30. OPERATING METH
## 50    MHOTU-23 HIT EASTBOUND MEAPTUL1-26.  BNSF DAMAGE = $622,304.  UP4929 & UP4811/ EMD SD70M-02/FU
## 51    TRAIN 491, WITH CONTROL CAR/9643,CAR 82524 AND ENGINE 828 STRUCK AN OCCUPIED VEHICLE AT THE WI
## 52    TRAIN C-BTMMON0-42 TRAVELING EAST STRUCK A TRACTOR TRAILER ON THE PASSENGER SIDE AT A PRIVATE
## 53    TRACTOR TRAILER STOPPED AT CROSSING.  AT THE LAST MINUTE, THE TRUCK DROVE ONTO THE CROSSING. T
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## 54    CREW SHOVING 4 CARS INTO YARD FAILED TO OBSERVE ROUTE AND STRUCK EQUIPMENT  ON TRACK 5. THEY TH
## 55     TRAIN 638 WHILE OPERATING SOUTH ON TRACK 2 STRUCK AN EMPTY CAR CARRIER DISABLED ON GREEN LANE
## 56    TRAIN NO.#48 OPERATING WITH LOCOMOTIVES 155/135 AND 15 CARS REPORTED IN EMERGENCY AT MP251 AS A
## 57    TRAIN 97 WITH ENGINE 84 AND 10 CARS STRUCK AN AUTO AT TRAINING SCHOOL ROAD, 4 MILES NORTH OF RO
## 58    ZYCMX-13, LEAD UNIT UP9690, COLLIDED WITH A TRACTOR/TRAILER PULLING A LOADED WATER TANK.  TRAIL
## 59    OC7SC-29 STRUCK A UP TRACTOR/TRAILER RIG AFTER DRIVER STOPPED AND PROCEEDED.  CSXT 713-GM-SD70I
## 60    TRAIN NO.#27 OPERATING WEST WITH LOCOMOTIVE 163 AND 4 CARS DERAILED THE ENTIRE CONSIST CAUSING
## 61         TRAIN 58 ENGINE 148-124 WITH 9 CARS OPERATING NORTH , STRUCK A PICK-UP TRUCK AT TANGIPAHOA
## 62    TRAIN NO.#5 OPERATING WITH LOCOMOTIVES 99/31/195 AND 9 CARS STRUCK A BOULDER, CAUSING THE DERAI
## 63             TRAIN 80 STRUCK A DUMP TRUCK AT A CROSSING, DERAILING THE ENGINE & 4 CARS NEAR RALEIGH
## 64    TRAIN NO.#796 OPERATING WITH CAB CAR 6952, 4 CARS AND ENGINE 452 TRAILING STRUCK A DUMP TRUCK C
## 65    TRAIN NO.#21 OPERATING WITH LOCOMOTIVE 54 AND 6 CARS STRUCK A BOULDER AT MP48.7, AS A RESULT OF
## 66    TRAIN NO.#6 OPERATING WITH ENGINES 97/7 AND 11 CARS STRUCK A TRACTOR-TRAILER TRUCK AT MP508.36
## 67      TRAIN S-MEMTAC1-09 REPORTED STRIKING A DUMP TRUCK AT COUNTY ROAD 80 CROSSING WITH CROSSBUCK.
## 68                                                    K96021 HAD A HEAD ON COLLISION WITH K959
## 69       METRA TRAIN NCS#107 STRUCK A NUMBER OF CARS THAT WERE STOPPED ON THE HIGHWAY/RAIL GRADE CROS
## 70    TRAIN FAILED TO COMPLY WITH MANDATORY SPEED REDUCTION THROUGH A CROSSOVER, CAUSING THE TRAIN TO
## 71               VEHICLE WENT AROUND CROSSING GATES AND WAS STRUCK BY A SOUTHWARD TRAIN IN SOUTH CHI
## 72    TRAIN 192P005 MOVING NORTH ON MAIN TRACK ENTERED OPEN SWITCH INTO AVONDALE MILLS INDUSTRY CONTA
## 73    TRAIN 100 STRUCK A JEEP AT A NON-GRADE CROSSING LOCATION, WHICH CAUSED THE TRAIN TO DERAIL AND
## 74    TRAIN #309 3501 (SOUTH END) 3519 (NORTH END) WAS TRAVELING SOUTHBOUND THROUGH MANOR RD. GRADE C
## 75    ZYCLD-13 REAR-ENDED MPBHG-15.  DERAILED CARS DAMAGED STANDING CARS ON ADJACENT TRACK, AND FIRE
## 76    CAR WAS SET OUT AND COUPLED TO ANOTHER CAR.  JOINT WAS NOT PROPERLY MADE.  HANDBRAKE WAS NOT SE
## 77    TRAIN NO.#2 OPERATING WITH LOCOMOTIVES 40/120 AND 6 CARS STRUCK A GRAVEL TRUCK AT MP86.35, A CR
## 78    TRAIN 91 WITH ENGINES 158 AND 22 AND 9 CARS STRUCK A TRACTOR TRAILER AT A GRADE CROSSING. THE T
## 79    TRAIN NO.#28 OPERATING WITH LOCOMOTIVE 156 AND 4 CARS DERAILED THE ENTIRE TRAIN, UPRIGHT, AT MP
## 80    TRAIN NO.#2 OPERATING WITH LOCOMOTIVES E/179-4 AND 7 CARS DERAILED C/35005 AND C/34100 AT MP279
## 81    TRAIN NO.#92 STRUCK THE TRAILER PORTION OF A TRACTOR-TRAILER THAT FAILED TO CLEAR THE CROSSING
## 82    TRAIN C71391-20 WAS TRAVELING NORTHBOUND AT APPROX. 55 MPH WHEN THEY APPROACHED THE MAIN STREET
## 83    TRACTOR TRAILER RIG STOPPED ON THE KILBOURN AVENUE CROSSING AS GATES CAME DOWN AND WAS STRUCK B
## 84     VRE 304 COMMUTER TRAIN, OPERATING WITH CAB CAR 701 IN THE LEAD, 5 CARS, AND ENGINE V04 IN THE
## 85  OPERATOR ON HARSCO TRACK TECHNOLOGIES'' WORK TRAIN WITH RAIL GRINDERS DIDN''T CONTROL SPEED AND E
## 86    A DUMP TRUCK FAILED TO YEILD AND WAS STRUCK BY UP1977 ON RCJKC-07.  3 UP EMPLOYEES WERE SERIOUS
## 87                         LOW TRUCK WITH EXCAVATOR ON IT BECAME STUCK ON CROSSING AND WAS STRUCK BY
## 88    SEPTA TRAIN #1134 OPERATING NORTHWARD, STANDING ON SINGLE TRACK WAS STRUCK BY SEPTA TRAIN #1143
## 89        CTWWE-02, WITH LEAD UNIT UP8087, STRUCK A STOPPED SANITATION TRUCK FOULING THE PRIVATE CROS
## 90                       SEMI TRUCK AND TRAILER LOADED WITH POTATOES FAILED TO STOP FOR APPROACHING T
## 91                                  A89 TRAVELING SOUTHBOUND AT MP 128.2MB AND STRUCK LOADED TANKER T
## 92    V30723 (LIGHT ENGINES) STRUCK N65721 (LIGHT ENGINES) ON THE MAINLINE ACCOUNT DISPATCHER FAILED
## 93                                                 X FRSBCY1 22 TRAIN STRUCK A FIRE TRUCK ON THE CROS
## 94    Z ALTRIC1 30 TRAVELING WEST ON MAIN 1 APPROACHING HANEY, TEXAS STRUCK A VEHICLE ON THE MAIN TRA
## 95     TRAIN NO.#2 OPERATING WITH LOCOMOTIVES 42/11 AND 7 CARS STRUCK A TRACTOR-TRAILER TRUCK AT MP17
## 96    TRAIN NO.#1 OPERATING WITH 2 LOCOMOTIVES AND 6 CARS STRUCK AN 18-WHEELER, TRACTOR-TRAILER TRUCK
## 97    H TPLTUL1 19A TRAIN, HEADING NORTH WHEN 24 CARS DERAILED.  CARS PILED UP AND DID DAMAGE TO A GR
## 98    MHOYC-02 WAS NORTHBOUND WHEN CREW FELT ROUGH TRACK AND THEN WENT INTO EMERGENCY.  TWO UNITS AND
## 99                                                  TRAIN STRUCK TRUCK TRAILER ON A PRIVATE CROS
## 100    TRAIN NO.#507 OPERATING WITH LOCOMOTIVE 465 AND 12 CARS STRUCK AN AUTOMOBILE AT MP83.80, DWIGH
## 101    TRAIN NO.#350 OPERATING WITH CAB CAR 90218 IN THE LEAD, 4 CARS AND LOCOMOTIVE UNIT #35 IN THE
## 102   ON OCTOBER 18, 2007 THE WEST DAY LOCAL WENT ON DUTY AT 6:00 AM IN DE QUEEN, AR AT MILE POST 50
## 103   SWITCH TO SOUTH END OF BALLEST TRACK ON THE WATERBURY MAIN (MBS TERRITORY) AT MP .06 WAS LINED
## 104                      TRAIN 4232 STRUCK A TRACTOR TRAILER ATTEMPTING TO MANEUVER AROUND CROSSING C
## 105                                AUTO RAN CROSSING AT COUNTY LINE ROAD AND WAS STRUCK, DRIVER KI
## 106   H499\nTRAIN DISPATCHER MISTAKENLY REMOVED BLOCKING DEVICE AND AUTHORIZED BY SIGNAL ONTO AN OUT
## 107   TRESTLE COLLAPSED UNDER TRAIN CAUSING BOTH ENGINES AND SLEEPER OUTFIT CAR TO ROLL ON THEIR SIDE
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## 108         MPSSF-23 DERAILED 16 CARS DUE TO A BROKEN WHEEL.  FOURTEEN CARS WERE DESTROYED.  RAIL WAS
## 109   ZYCHOB-20, WITH LEAD UNIT UP2453, STRUCK A PICKUP FAILING TO YIELD AT SH 226 CROSSING INJURING
## 110   CREW OF THE CJROM-27 MOVING THE UP6635 TO THE FUELING AREA STRUCK A RAIL CREW EXPRESS VAN (LIMO
## 111   TRAIN NO.#2 OPERATING WITH LOCOMOTIVES E/43-87 AND 8 CARS DERAILED THE 2ND LOCOMOTIVE AND ALL 8
## 112   TRAIN NO.#713 OPERATING WITH LOCOMOTIVE 2011 AND 4 CARS STRUCK A SPORT UTILITY VEHICLE AT MP109
## 113    TRAIN NO.#541 OPERATING WITH LOCOMOTIVE E/2001 AND 5 CARS, STRUCK A GRAVEL TRUCK AT MP40.10, I
## 114   TRAIN NO.#371 OPERATING WITH LOCOMOTIVE E/8 AND 3 CARS STRUCK THE REAR OF NORFOLK SOUTHERN FREI
## 115   TRAVELING WHEN IN CURVE, ENGINEER LOOKED BACK AT TRAIN AND SAW CARS DERAILED. CARS HAD DERAILED
## 116   TRAIN 92 WITH ENGINES 63 AND 23 AND 9 CARS STRUCK A VEHICLE THAT DROVE AROUND THE LOWERED GATES
## 117   TRAIN NO.#92 OPERATING WITH LOCOMOTIVES E/191-E/91 AND 9 CARS STRUCK A FLAT BED TRUCK  HAULING
## 118   TRAIN NO.#715 STRUCK A WATER TANKER TRUCK/TRAILER AT MP904.4, BEECH ST CROSSING, CAUSING THE LO
## 119   TRAIN NO.#98 OPERATING WITH LOCOMOTIVES E/202-E/94 AND 9 CARS STRUCK THE TRAILER PORTION OF A T
## 120   A STOPPED METRA TRAIN WAS STRUCK HEAD ON BY AN UNATTENDED CN/IC LIGHT ENGINE CONSIST (UP6522 AN
## 121    TRAIN 98 EQUIPMENT, CONSISTING OF 10 CARS, WAS OCCUPYING TRACK 25 AT WASHINGTON TERMINAL.  ENG
## 122    TRAIN 301 OPERATING WITH LOCOMOTIVE E/173 AND 4 CARS STRUCK A TRACTOR-TRAILER TRUCK AFTER IT E
## 123   TRAIN 717 OPERATING WITH LOCOMOTIVE E/148 AND 4 CARS WAS STRUCK BY A FLAT BED TRUCK WITH A LOAD
## 124   TRAIN 59 OPERATING WITH LOCOMOTIVE E/7 AND 6 CARS STRUCK A GARBAGE DISPOSAL TRUCK AT MP751.20,
## 125   TRAIN 1 OPERATING WITH LOCOMOTIVES E/157 IN THE LEAD, 6 CARS, AND LOCOMOTIVE E/36 IN THE REAR S
## 126  AMXASB-13 WITH LEAD UNIT UP9657, WAS NORTHBOUND ON AUSTIN''S NO. 1 MAIN TRACK WHEN A TRACTOR TRA
## 127   TRAIN 111 RAN A RED SIGNAL AND COLLIDED HEAD-ON WITH A UPRR FREIGHT.  THE NUMBER OF FATALITIES
## 128    TRAIN 736 OPERATING WITH CAB C/8306, 3 CARS AND LOCOMOTIVE E/2013 IN THE REAR WAS STRUCK BY A
## 129   RUNAWAY FREIGHT CAR STRUCK TRAIN 917\nAN MBCR PRELIMINARY INVESTIGATION REPORT WAS BEGUN IN APR
## 130   AT 5:40PM ACE #4 OPERATING NORTH IN PUSH MODE WITH ENGINE ACEX 31 STRUCK THE BUMPING POST PROTE
## 131   TRACTOR TRAILER PULLED OVER CROSSING AND WAS STRUCK BY Q26922 CAUSING DERAILMENT AND INJURIES T
## 132   HIGH-RAIL VEHICLE SLID ON RAIL INTO CROSSING AND WAS STRUCK ON PASSENGER SIDE.  EMPLOYEE DRIVI
## 133   TRAIN #3, WHILE DEPARTING FROM CHICAGO, DERAILED CAR 33019 AND 34034 AT CROSS OVER SWITCH. UPO
## 134   TRAIN 302 OPERATING WITH LOCOMOTIVE E/32 AND 4 CARS, STRUCK A GARBAGE TRUCK AT MP 221.90, CISCO
## 135   TRAIN 74 OPERATING WITH LOCOMOTIVE NC/1755 AND 5 CARS STRUCK A TRACTOR-TRAILER TRUCK AT MP370.7
## 136    GO2G811 TRAVELING NORTH ON MAINLINE WITH 2 UNITS, 31 LOADS, 1 EMPTY AND 305 TONS, STRUCK VEHIC
## 137                          REAR-ENDED BY BABY WIRE TRAIN.  CREW NOT TESTED.  #13 NEWTOWN JCT INTERLO
## 138   TRAIN #4687 STRUCK AN UNOCCUPIED BUS DISABLED ON THE PARK AVE GRADE CROSSING LOCATED AT MP 2.1
## 139   TRAIN 821 OPERATING WITH LOCOMOTIVE E/171 IN THE LEAD, 4 CARS, AND LOCOMOTIVE E/194 IN THE REAR
## 140    TRAIN 73 OPERATING WITH ENGINE NC/1755 AND 4 CARS STRUCK A TRACTOR-TRAILER AT MP 361.50, PHARR
## 141   ON MONDAY, DECEMBER 21,2009 AT APPROXIMATELY 0921 HOURS, TRAIN #229, LRV 3510, REPORTED STRIKIN
## 142                                                SMOKING TRAIN, ENGULFED IN FLAMES, CREW NOT TE
## 143   TRAIN 59 WITH ENGINE 115 AND 5 CARS REPORTED STRIKING A TREE AT MCCOMB SUBDIVISION, DERAILING 7
## 144    U70691-18 WAS EASTBOUND AT 37 MPH ON SINGLE MAIN TRACK WITH 2 LOCOMOTIVES, 78 LOADS AND 36 EMP
## 145   GSBEAB-04, WITH LEAD UNITUP6469, STRUCK A TRACTOR TRAILER RIG AT COUNTY ROAD 301.  UP6469 STRUC
## 146    TRAIN 2 OPERATING WITH LOCOMOTIVES E/181-E58 AND 7 CARS STRUCK A TRACTOR-TRAILER TRUCK AT MP13
## 147    TRAIN 751 OPERATING WITH LOCOMOTIVE 2011 AND 5 CARS STRUCK A VEHICLE AT MP13.75 ON UP  SUBDIVI
## 148   TRAIN 5 OPERATING WITH LOCOMOTIVES E/205-E/150 AND 9 CARS STRUCK AN AUTOMOBILE AT MP61.99, EAST
## 149   TRAIN 30 OPERATING WITH LOCOMOTIVES E/169-E/122 AND 9 CARS STRUCK A FLATBED TOW TRUCK AT MP411
## 150    TRAIN # 97 OPERATING WITH LOCOMOTIVES E/60-E/50 AND 12 CARS STRUCK A PICK-UP TRUCK AT MP945.03
## 151   AUTO TRAIN # 53 OPERATING WITH LOCOMOTIVES E/116-E/13-E/17 AND 44 CARS STRUCK A VEHICLE STUCK O
## 152    TRAIN 21 OPERATING WITH LOCOMOTIVES 193 - 142 AND 7 CARS DERAILED 5TH AND 6TH CAR ON THE UPRR
## 153   QMXAS-18, WITH LEAD UNIT UP7912, STRUCK A TRACTOR TRAILER RIG THAT WAS DRIVING ALONG SIDE OF TH
## 154   MACZ YARD CREW WS3A WITH ENGINE 4910 WAS SHOVING 7 CARS IN WASHINGTON, DC AND MOVED PAST A STOP
## 155   TRAIN 353 OPERATING WITH LOCOMOTIVE E/28 AND 7 CARS STRUCK A FIRE TRUCK PARKED FOULING MAIN TRA
## 156   TRAIN 73 OPERATING WITH LOCOMOTIVE UNIT RNCX1792 AND 3 CARS, STRUCK A LOW-BOY TRAILER CARRYING
## 157   TRAIN 714, OPERATING WITH CAB CAR C/8302 IN THE LEAD, 4 CARS AND LOCOMOTIVE E/56 IN THE REAR, S
## 158   TRAIN 98 OPERATING WITH LOCOMOTIVES E/4-E/73 AND 10 CARS STRUCK AN AUTOMOBILE AT MP713.70, A PI
## 159   TRAIN 2 OPERATING WITH LOCOMOTIVES E/821-E/195 AND 7 CARS STRUCK A TRACTOR-TRAILER TRUCK AT MP1
## 160    TRAIN 63 ENGINE 173 AND 5 CARS STRUCK THE RAIL THREADER ON CSX WORK TRAIN O035-16 CAUSING EXTE
## 161   TRAIN 306 OPERATING WITH LOCOMOTIVES E/145-E/21 AND 5 CARS DERAILED LOCOMOTIVE E/21 AND ALL 5 C
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## 162   TRAIN 354 STRUCK A UPRR MAINTENANCE-OF-WAY TRUCK AT TEMPLE AVENUE.  NOTE: QUES. 46 UPDATED 5/2
## 163    AMTRACK 391-1-03 PASSED SIGNAL IN STOP POSITION WITHOUT AUTHORITY AND STRUCK BNSF/METRA A-124
## 164   TRAIN 681 OPERATING WITH LOCOMOTIVE E/121 AND 5 CARS STRUCK A TRACTOR-TRAILER TRUCK AT MP 234.
## 165   AT APPROXIMATELY 0832 HOURS ON MAY 8, 2011, THE 0820 33RD STREET TO JOURNAL SQUARE VIA HOBOKEN
## 166   TRAIN 713 OPERATING WITH LOCOMOTIVE E/77 AND 4 CARS STRUCK A TRACTOR-TRAILER HAULING TOMATOES
## 167   TRAIN 718 OPERATING WITH CAB CAR 8305, 3CARS, AND LOCOMOTIVE E/162 TRAILING STRUCK A TRACTOR-T
## 168                                                TRAIN 92 REPORTED A SMOKE CONDITION IN CAB OF ENGIN
## 169   TRAIN 20 STRUCK A TRACTOR-TRAILER TRUCK AT CROSSING CAUSING LOCOMOTIVES E/187-E/80 AND 3 CARS
## 170   VEHICLE DELIBERATELY DISREGARDED AND DROVE THROUGH THE ACTIVATED GRADE CROSSING WARNING MECHAN
## 171   TRAIN 6 WITH ENGINES 174 AND 100 AND 10 CARS STRUCK A DEMOLITION CRANE WHICH WAS FOULING THE T
## 172   MFWLI-26, WITH LEAD UNIT UP8242, WHILE TRAVELING ON SINGLE MAIN LINE STRUCK A TRACTOR TRAILER
## 173   OPERATOR OF HIGHWAY VEHICLE TURNED SOUTH ONTO ML2, MISTAKING THE TRACKS AS THE I-95 ON RAMP, A
## 174   COMMUTER TRAIN M636-13, STRUCK A TRUCK LOADED WITH BROKEN CONCRETE AND DERAILED ALL WHEELS ON
## 175   TRAIN 5 OPERATING WITH LOCOMOTIVES E/43-E/177 AND 10 CARS WAS STRUCK BY A SEMI TRACTOR-TRAILER
## 176   TRAIN 2013 STRUCK A TRUCK THAT WENT AROUND LOWERED GATES AT EXECUTIVE DRIVE RESULTING IN DAMAG
## 177   TRAIN 509 OPERATING WITH CAB CAR C/90253 IN THE LEAD, 13 CARS AND LOCOMOTIVE E/190 IN THE REAR
## 178   TRAIN 351 OPERATING WITH LOCOMOTIVE E/128, 5 CARS, AND LOCOMOTIVE E/31 IN THE REAR STRUCK A TRA
## 179   TRAIN 59 OPERATING WITH LOCOMOTIVE E/94 AND 7 CARS STRUCK A PICK-UP TRUCK AT MP172.30, GRAND A
## 180   TRUCK-TRAILER BECAME HIGH-CENTERED ON PRIVATE CROSSING AND WAS STRUCK BY TRAIN 271.    INJURIE
## 181   THE FC42 WAS PULLING SOUTH WITH 68 LOADS, 14 EMPTIES, 9,321 TONS AND 4,916 FEET WHEN ECUX88149
## 182   VEHICLE TRAVELED INTO THE OPPOSITE LANE OF TRAFFIC AND AROUND THE LOWERED CROSSING GATE INTO T
## 183   AMTRAK TRAIN 774 OPERATING WITH LOCOMOTIVE E/456 AND 6 CARS STRUCK A TOW-TRUCK AT MP 239.86, C
## 184   TRAIN 350 OPERATING WITH LOCOMOTIVE E/31 IN THE LEAD, 4 CARS, AND LOCOMOTIVE E/28 IN THE REAR
## 185   TRAIN 91 OPERATING WITH LOCOMOTIVES E/60-E/144 AND 10 CARS STRUCK A DUMP TRUCK AT MP 795.87, G
## 186   LOCOMOTIVES E/71-E/108 WERE REPORTED WITH HEAVY SMOKE AT THE SOUTH END OF THE PORTAL IN THE S&
## 187   TRAIN 59 OPERATING WITH LOCOMOTIVE E/54 AND 7 CARS STRUCK THE REAR PORTION OF A TRACTOR-TRAILE
## 188   ZLCAI-14, WITH LEAD UNIT UP7877, STRUCK THE REAR OF A TRAILER THAT WAS BEING PULLED BY A SEMI
## 189   HIGHWAY USER FAILED TO STOP AT PRIVATE GRADE CROSSING AND WAS STRUCK BY TRAIN. ONE PASSENGER W
## 190                              DERAILED AT BROAD INTERLOCKING, ENGINEER TESTED. CAUSE UNDER INVESTIG
## 191   TRAIN 713 OPERATING WITH LOCOMOTIVE E/2005 AND 5 CARS STRUCK A SEMI-TRACTOR TRAILER AT MP934.2
## 192   TRAIN 21 OPERATING WITH LOCOMOTIVE E/69 AND 7 CARS STRUCK A COMMERCIAL TRACTOR-TRAILER TRUCK A
## 193   R97471-19 WAS IN THE PROCESS OF NORMAL SWITCHING OPERATIONS BETWEEN TAMINCO STORAGE YARD AND E
## 194   TRAIN 712 OPERATING WITH CAB CAR C/8311 IN THE LEAD, 3 CARS AND LOCOMOTIVE E/94 TRAILING, WAS
## 195   TRAIN 74 OPERATING WITH LOCOMOTIVE E/1893 AND 4 CARS STRUCK A TRACTOR-TRAILER TRUCK AT MP294.5
## 196   TRACTOR TRAILER STOPPED ON TRACKS, REPORTEDLY BLOCKED BY TRAFFIC AHEAD. TRAIN STRUCK REAR OF T
## 197   X-BNTENI9-27 DAMAGED LOCOMOTIVE, SIGNAL EQUIPMENT, AND TRACK WHEN IT STRUCK A PICKUP TRUCK AT
## 198   HIGHWAY USER STRUCK PASSENGER TRAIN WITH LOADED LOG TRUCK.  THE HIGHWAY USER WAS KILLED; ONE R
## 199   TRAIN #1548, WHILE TRAVELING EAST ON TRACK #4 TOWARDS BRIDGEPORT STATION, DERAILED AT MP 53.3
## 200   EDYLIM-19, WITH LEAD UNIT UP8232, WHILE CONDUCTING A POWER MOVE, STRUCK A TRACTOR TRAILER RIG
## 201   TRAIN #1006 STRUCK THE TRAILER OF AN UNOCCUPIED TRACTOR TRAILER CARRYING PAINTMATERIALS AT MAI
## 202    AT 8:05 AM THE OPERATOR OF TRAIN #221 LRV 3506 MADE AN EMERGENCY NOTIFICATION TO THE CONTROL
## 203   TRAIN #1255 STRUCK A DISABLED TRACTOR TRAILER AT HOBART PLACE CROSSING CAUSINGDAMAGE TO LOCOMO
## 204   DUMP TRUCK BECAME STUCK BY CROSSING GATES, BACKED-UP, THEN PROCEEDED FORWARD AND WAS STRUCK BY
## 205   MJBPB-26, WITH LEAD UNIT CSXT 8199, STRUCK A TRACTOR PULLING A TRAILER, DRIVER FAILED TO STOP
## 206   TRAIN 8 OPERATING WITH LOCOMOTIVES E/90-E/468-E/206 AND 11 CARS STRUCK AN OCCUPIED TRACTOR-TRA
## 207   Q60007 STRUCK A TRACTOR TRAILER THAT WAS STALLED ON CROSSING RESULTING IN INJURIES TO THE FIVE
## 208   A MINI VAN OCCUPIED WITH 1 ADULT AND 3 CHILDREN WENT AROUND THE CROSSING GATE AND WAS STRUCK B
## 209   TRAIN 59 OPERATING WITH LOCOMOTIVESE/824-E/68 AND 7 CARS STRUCK A TRACTOR-TRAILER LOADED WITH
## 210   WHILE OPERATING TRAIN 8808, ENGINEER FAILED TO ADHERE TO LIMITATIONS CONCERNING TRAIN SPEED WH
## 211   THE 2ASMAR-25 PASSED SIGNAL DISPLAYING STOP AT MP131, COLLIDING WITH A BNSF TRAIN.  THE COLLIS
## 212   Q40927 STRUCK A DUMP TRUCK THAT FAILED TO STOP AT THE CROSSING AND DROVE INTO THE PATH OF THE
## 213    TRAIN 20 OPERATING WITH LOCOMOTIVES E/160-E/92 AND 9 CARS DERAILED 8 OF THE 9 CARS AS A RESUL
## 214   TRAIN 2 OPERATING WITH LOCOMOTIVES E/120-E/170 AND 9 CARS STRUCK A PIECE OF FARM EQUIPMENT (FE
## 215    TRAIN #23 WAS TRAVELLING NORTHBOUND WHEN IT CROSSED THE SOUTH SWITCH AT WHITE PASS.  THE CONN
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## 216   TRAIN 490 OPERATING WITH CAB CAR 9639 IN THE LEAD, 1 CAR, AND LOCOMOTIVE E/107 TRAILING STRUCK
## 217   OPERATOR OF HIGHWAY VEHICLE DROVE THROUGH THE LOWERED CROSSING GATE INTO THE PATH OF THE TRAIN
## 218    TRAIN 718 OPERATING WITH CAB CAR 90225 IN THE LEAD, 6 CARS AND LOCOMOTIVE E/2002 IN THE REAR S
## 219    TRAIN 59 OPERATING WITH LOCOMOTIVE E/809 AND 7 CARS STRUCK THE CAB OF AN 18 WHEELER TRACTOR-TR
## 220    TRAIN 851 OPERATING WITH LOCOMOTIVE E/154 AND 3 CARS STRUCK AN OCCUPIED TRACTOR-TRAILER TRUCK
## 221   TRAIN 22 OPERATING WITH LOCOMOTIVE E/131 AND 7 CARS STRUCK A TRACTOR-TRAILER AT MP 249.80, EISE
## 222   Q33230 TRAVELING EAST STRUCK AN OCCUPIED VEHICLE AT SIXTH STREET. VEHICLE DID NOT STOP AND WENT
## 223   A SEMI TRUCK TRAILER DISCONNECTED FROM A SEMI TRUCK WHILE CROSSING OVER TOUHY AVENUE. AS A RESU
## 224   TRAIN 701 OPERATING WITH LOCOMOTIVE E/155 AND 5 CARS WAS STRUCK BY AN OCCUPIED SUV AT MP1015.11
## 225   TRAIN 132 STRUCK AN OCCUPIED SUV THAT WAS HIGH-CENTERED ON THE TRACKS CAUSING LEAD ENGINE UNIT
## 226   TRAIN 1 OPERATING WITH LOCOMOTIVES E/161-E/153 AND 6 CARS STRUCK AN OCCUPIED PICK-UP TRUCK AT M
## 227   TRAIN 80 OPERATING WITH LOCOMOTIVE E/135 AND 7 CARS STRUCK AN OCCUPIED TRACTOR-TRAILER TRUCK AT
## 228   TRAIN 55 OPERATING WITH LOCOMOTIVE E/102 AND 5 CARS DERAILED THE LOCOMOTIVE E/102 AND 4 COACH C
## 229   TRAIN 20 OPERATING WITH LOCOMOTIVES E/99-E/79 AND 9 CARS STRUCK AN OCCUPIED DUMP TRUCK AT MP 15
## 230   Z-WSPALT8-06 DERAILED 4 LOCOMOTIVES AND 10 RAILCARS WHILE TRAVERSING SINGLE MAIN TRACK DUE TO M
## 231   TRAIN 188 WITH LOCOMOTIVE E/601 AND 7 CARS DERAILED AT MP 81.7 WHILE OPERATING EAST ON # 2 TRAC
## 232   TRAIN 659, WHILE TRAVELING NORTHBOUND ON TRACK 2, STRUCK A VEHICLE THAT HAD STOPPED ON THE GRAD
## 233   TRAIN 284 LRV 3503 WAS TRAVELING NORTH ON THE SINGLE TRACK WHEN THE TRAIN STRUCK AN AUTOMOBILE
## 234  CREW WAS PERFORMING BRIDGE REPAIRS WHEN A 60-TON LOCOMOTIVE CRAN WAS ATTEMPTING TO PLACE A 26''
## 235   TRAIN 59 OPERATING WITH LOCOMOTIVE E/823 AND 7 CARS STRUCK AN OCCUPIED FLATBED TRUCK AT MP 842
## 236   THE KLBG3-01 WAS PROCEEDING EASTWARD, BLOWING THEIR HORN AND WHISTLE FOR THE FAIRWAY AVE. CROSS
## 237   TRAIN 102 STRUCK AN ABANDONED VEHICLE AT A NON-GRADE LOCATION, APPROX. 80 FEET FROM THE NORTH S
## 238    S54101 DERAILED DUE TO JOURNAL (ROLLER BEARING) FAILURE FROM OVERHEATING. CAR  CAME TO REST AD
## 239   TRAIN 22 OPERATING WITH LOCOMOTIVE E/66 AND 8 CARS STRUCK AN OCCUPIED TRACTOR-TRAILER TRUCK AT
## 240   TRAIN 92 STRUCK AN OCCUPIED LOG TRUCK AT MP 312.18, ROBERT REYNOLDS RD CROSSING. AMTRAKS EQUIPM
## 241   TRAIN 80 OPERATING WITH LOCOMOTIVE E/185 AND 7 CARS STRUCK AN OCCUPIED TRACTOR-TRAILER HAULING
## 242    TRAIN 7 OPERATING WITH LOCOMOTIVES E/91-E/155 AND 12 CARS STRUCK AN OCCUPIED DUMP TRUCK LOADED
## 243   TRAIN 59 OPERATING WITH LOCOMOTIVE E/821 AND 7 CARS STRUCK AN OCCUPIED DUMP TRUCK AT MP 107.99
## 244   L23020 STRUCK A LOADED LOG TRUCK AT MT. PLEASANT CHURCH ROAD CROSSING. CSXT 922 IMPACTED THE PA
## 245   TRAIN 702 OPERATING WITH CAB CAR C/8306 IN THE LEAD, 4 CARS AND LOCOMOTIVE E/2011 IN PUSH MODE
## 246   AT 0810 AM , THURSDAY  OCTOBER 8, 2015  SUNRAIL TRAIN P31108 WAS SOUTBOUND ON # 1 TRACK  AT MP
## 247    TRAIN 500 OPERATING WITH LOCOMOTIVE E/465 AND 14 CARS STRUCK THE REAR OF A TRACTOR-TRAILER TRU
## 248   TRAIN 58 OPERATING WITH LOCOMOTIVE E/194 AND 8 CARS STRUCK AN OCCUPIED VEHICLE AT MP 200.62, KI
## 249                                          NS TRAIN A89A408 STRUCK A HWY-USER AT A HWY-GRADE CROS
## 250   TRAIN 4 OPERATING WITH LOCOMOTIVES E/153-E/152 AND 10 CARS DERAILED 8 CARS AT MP 372.92 CIMARRO
## 251      TRAIN 59 STRUCK AN OCCUPIED TRACTOR-TRAILER AT CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $46,03
## 252   TRAIN 59 OPERATING WITH LOCOMOTIVE E/197 AND 8 CARS STRUCK AN OCCUPIED TRACTOR-TRAILER TRUCK AT
## 253   AT APPROXIMATELY 10:10 AM, ON MAY 5, 2016, TRAIN 297, LRV 3515, WHILE OPERATING SOUTHBOUND ON T
## 254   TRAIN 89 STRUCK A BACKHOE FOULING #3 TRACK AT PW LINE MP 15.7.  AMTRAKS EQUIPMENT DAMAGE FOR TR
## 255   TRAIN 713 OPERATING WITH LOCOMOTIVE CDTX 2004 AND 5 CARS STRUCK AN OCCUPIED FARM PICK-UP TRUCK
## 256    TRAIN 3 OPERATING WITH LOCOMOTIVES E/183-E/112 AND 10 CARS STRUCK AN OCCUPIED VEHICLE AT MP 63
## 257   TRAIN 91 STRUCK AN OCCUPIED TRACTOR-TRAILER AT CROSSING.  THERE WERE NO CROSSING SIGNS OR SIGNA
## 258   OPERATOR OF A CITY OF LAKE WORTH GARBAGE TRUCK STOPPED ON THE CROSSING AND EXITED THE VEHICLE.
## 259   TRAIN 21 OPERATING WITH LOCOMOTIVE E/189 AND 8 CARS STRUCK A SEMI TRACTOR-TRAILER AT MP 641.66
## 260   TRAIN 59 OPERATING WITH LOCOMOTIVE E/130 AND 8 CARS STRUCK AN OCCUPIED VEHICLE AT MP 83.20, 16C
## 261   TRAIN 718 OPERATING WITH CAB CAR 8312, 4 CARS AND 1 LOCOMOTIVE TRAILING, STRUCK AN OCCUPIED MO
## 262    ACE 10 WAS OPERATING AT MAXIMU7M AUTHOROIZED SPEED(40MPH), EASTWARD ON THE OAKLAND SUB WHEN IT
## 263   TRAIN #1614 STRUCK THE BUMPING BLOCK AND HOBOKEN TERMINAL WHILE ARRIVING TRACK#5. 358 PEOPLE WE
## 264   TRAIN 303 STRUCK AN OCCUPIED TRACTOR-TRAILER TRUCK AT MP 40.36, LARAWAY RD CROSSING.  AMTRAKS M
## 265   AMTRAK NO. 501 DERAILED LOCOMOTIVE WDTX1402 AND TWELVE CARS WHILE APPROACHING AN OVERPASS NEAR
## 266   TRAIN 506 OPERATING WITH LOCOMOTIVE E/467 IN THE LEAD, 13 CARS, AND LOCOMOTIVE E/470 IN PUSH MO
## 267   TRAIN 92 OPERATING WITH LOCOMOTIVE E/173 AND 8 CARS STRUCK AN UNOCCUPIED TRACTOR-TRAILER THAT W
## 268   THE LEAD TRUCK OF THE 35TH CAR ON TRAIN Q38831 DERAILED AT MP BF 193.7 WITH THE UDE AND GENERAL
## 269   ENGINEER OF TRAIN #1373 WAS OPERATING AT 55.9 MPH THROUGH A 10 MPH TEMPORARY SPEED RESTRICTION
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## 270   TRAIN 711 OPERATING WITH CAMERA-EQUIPPED LOCOMOTIVE E/19 AND 5 CARS STRUCK AN OCCUPIED PICK-UP
## 271    TRAIN 91 OPERATING WITH LOCOMOTIVE E/93 AND 8 CARS STRUCK A TRACTOR-TRAILER (LOW BOY) AT MP 84
## 272   TRAIN 92 OPERATING WITH LOCOMOTIVES E/175-E/153 AND 8 CARS STRUCK THE TRAILER PORTION OF AN OC
## 273   TRAIN 49 OPERATING WITH LOCOMOTIVES E/184-E/180 AND 11 CARS DERAILED 3 CARS (25016, 25091, 280
## 274   TRAIN WAS TRAVELING WEST BOUND AT 9 MPH AND COLLIDED WITH A BUS THAT FAILED TO STOP BEFORE APPI
## 275   ZLAJX-01, LEAD UNIT UP8653 STRUCK THE REAR OF AN OCCUPIED VEHICLE WHICH WAS STOPPED ON THE TRAC
## 276   TRAIN #3926 DERAILED ALL WHEELS OF CAR #7714, A END TRUCK OF #7265 AND B END TRUCK OF #7727 WHI
## 277   AMTRAK TRAIN #2151 DERAILED FIRST TRUCK OF THIRD CAR AND REAR TRUCK OF 4TH CARWHILE OPERATING (
## 278   TRAIN 2817 COLLIDED WITH THE BUMPER BLOCK ON ATLANTIC TERMINAL TRACK 6 DERAILING LEAD MOTOR NUM
## 279   AT 0336 A 57-YEAR-OLD MALE DRIVER OF A GMC VAN ENTERED THE CHAMBERS HIGHWAY GRADE CROSSING AND
## 280   Q60607 STRUCK  BUS THAT  WAS STUCK ON THE TRACKS AT CROSSING. THE CROSSING CONTAINED LOW GROUNI
## 281   TRAIN 92 OPERATING WITH CAMERA-EQUIPPED LOCOMOTIVE E/46 AND 8 CARS WAS STRUCK BY AN OCCUPIED PI
## 282   TRAIN 923(31) OPERATING WESTBOUND WITH LOCOMOTIVES E/145/4 AND TEN CARS IN PUSH PULL MODE STRUC
## 283   TRAIN 59(09) OPERATING WITH E/28 AND 7 CARS STRUCK A TRACTOR TRAILER AT A PRIVATE ROAD CROSSING
## 284   TRAIN 2 OPERATING WITH LOCOMOTIVES E/113-E/168 AND 7 CARS STRUCK AN OCCUPIED TRACTOR-TRAILER AT
## 285   TRE 3915 TRAVELING WESTBOUND STRUCK LOADED DUMP TRUCK THAT WAS FOULING THE TRACK AT CALLOWAY CR
## 286   TRAIN 21 OPERATING WITH LOCOMOTIVE E/6 AND 8 CARS STRUCK AN UNOCCUPIED VEHICLE AT MP 78.31, STR
## 287   TRAIN 91(03) OPERATING SOUTHBOUND ON MAIN TRACK WITH LOCOMOTIVE E/47 AND SEVEN CARS, WAS DIVERT
## 288   TRAIN 364 OPERATING WITH LEAD LOCOMOTIVE E/28, 6 CARS AND LOCOMOTIVE E/29 TRAILING, STRUCK AN (
## 289   TRAIN 98 OPERATING WITH LOCOMOTIVES E/42-E/132 AND 12 CARS DERAILED 3 CARS (61044, 62021, 62015
## 290   Q19729 STRUCK OCCUPIED VEHICLE THAT WENT AROUND THE GATES TO BEAT THE TRAIN. PROTECTION ALSO AT
## 291   TRAIN 381(22) OPERATING WITH E/ID4611 AND 5 CARS, STRUCK A FARM VEHICLE AT A PRIVATE CROSSING.
## 292   TRAIN 648 OPERATING WITH CAB CAR C/9650 IN THE LEAD, 4 CARS AND CAMERA-EQUIPPED LOCOMOTIVE E/65
## 293   TRAIN #3701 STRUCK AND FATALLY INJURED A TRESPASSER WHO JUMPED FROM THE PLATFORM AT METUCHEN AN
## 294    TRAIN #66 STRUCK AN UNOCCUPIED BUS THAT WAS STOPPED ON THE GRADE CROSSING WITHTHE EAST GATE RE
## 295   TRAIN 97 OPERATING WITHLOCOMOTIVES E/79-E/125 AND 12 CARS STRUCK A TRACTOR TRAILER AT A GRADE C
## 296   TRAIN 1 OPERATING WITH LOCOMOTIVES E/78-E/12 AND 9 CARS STRUCK AN OCCUPIED AUTO AT MP 807.31, I
## 297   TRAIN 2 OPERATING WITH LOCOMOTIVES E/20-E/183 AND 7 CARS STRUCK AN OCCUPIED TRACTOR-TRAILER AT
## 298   TRAIN 59(15) OPERATING WITH E/35, 7 CARS STRUCK A SEMI-TRACTOR TRAILER AT MILEPOST/746 ON THE C
## 299   TRAIN350 OPERATING WITH LOCOMOTIVES E/126-E/35 AND 5 CARS STRUCK A SEMI-TRACTOR TRAILER AT MP 1
## 300   TRAIN 14 STRUCK AN OCCUPIED VEHICLE AT MP 13.59, MARKET AVE CROSSING.  THE 3 OCCUPANTS OF THE V
## 301   MOTORCYCLE DROVE UNTO OPPOSITE LANE OF TRAFFIC TO BYPASS VEHIVLES STOPPED BY CROSSING ARMS FOR
## 302   TRAIN 956 WAS TRAVELING SOUTH ON TRACK 1 OPERATING AT CORBIN ROAD CROSSING WHEN IT MADE CONTACT
## 303   TRAIN 365 OPERATING WITH LOCOMOTIVE E/29, 6 CARS AND LOCOMOTIVE E/28 TRAILING STRUCK AN OCCUPIE
## 304            NB TRAIN 4056/55, 4018/17, TRIP 151 STRUCK A SEMI AT THE SABLE BLVD HIGHWAY GRADE CROS
## 305   TRAIN 59 OPERATING WITH LOCOMOTIVE E/32, 7 CARS AND 2 PRIVATE CARS STRUCK AN OCCUPIED ROAD TRAC
## 306   192G506 REPORTED PASSING OVER A BROKEN RAIL FOLLOWED BY TRAIN GOING IN EMERGENCY. CONDUCTOR REI
## 307   AT THE WESTBURY SCHOOL STREET CROSSING, TRAIN 2065 STRUCK A MOTOR VEHICLE THAT WAS STUCK ON THE
## 308   TRAIN 393 OPERATING WITH LOCOMOTIVE ID4616 PULLING 7 CARS STRUCK A LARGE OCCUPIED BOX TRUCK AT
##
## 1             S WEST OF CRESTON, IA.  THE CAUSE OF THE DERAILMENT HAS BEEN DETERMINED TO BE A BROKEN
## 2
## 3
## 4     R.  AT 8:52 AM TRAIN SERVICE WAS SUSPENDED INTO THE WORLD TRADE CENTER.  ALL PATH EMPLOYEES WEI
## 5                                              IN #5 TO DERAIL BOTH ENGINES 143/149 AND THE LEAD 9
## 6                                        ONL-10 AT MP76 CAUSING DERAILMENT OF SEVERAL CARS IN BOTH TI
## 7      FRONT OF THE TANDEMS ON THE PASSENGER SIDE.  ASPBVX-23 ENGINEER STATED HE GOT ON FLOOR PRIOR T
## 8                                              60 CROSSING CAUSING EXTENSIVE DAMAGE TO ENG UNIT NO
## 9                         WAS DUE TO A WASHOUT OF THE TRACK SUBSTRUCTURE WHICH WAS CAUSED BY FLASH FLO
## 10                        TRUCK HAD BACKED INTO TRACK INFRASTRUCTURE AND CAUSE IRREGULAR ALIGNMENT TO T
## 11                                                                          NSF MAINTA
## 12    T OF CORRECTIONS BUT AT ABOUT 3:35 PM.  THE BUS CARRYING A LOAD OF INMATES TURNED OFF OF HWY 78
## 13     INDIANA STATION (MP 68.5) AT 5:37 PM FOR METAMORA, INDIANA WITH 386 PASSENGERS.  AT 6:55 PM TR
## 14     G AND 11 LOADS STYRENE MONOMER INHIBITED, DERAILED 31 CARS, ALL ON THEIR SIDES, RESULTING IN I
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## 15                                                    GEMENT UNDER NORMAL WEATHER AND TRAFFIC CONDI
## 16   AR THAT WAS ON THE TRACK. DISPATCHER FAILED TO ACKNOWLEDGE REPORT FROM CONDUCTOR AND ENGINEER
## 17                                                      D THE CROSSING GATE AND WAS STRUCK BY BNSF
## 18   D THAT THE DERAILMENT WAS CAUSED BY TRACK OUT OF ALIGNMENT AS WELL AS TRACK/ROADBED DISTURBANC
## 19                                                    T MP A832.90, DELBERT COLLINS PRIVATE RD CRO
## 20    PULLING OUT BUT STOPPED AT THE SECOND SIGNAL.  THE ENGINEER OF TRAIN 6721 HAD RESTRICTING IND
## 21
## 22   AD APPROXIMATELY 15:21.  APPROXIMATELY 64 INJURIES COMBINED BETWEEN METRA 1235 AND 1270.  MOVE
## 23
## 24                                                                                          ATAL
## 25                                                R STRIKING A LOG TRUCK AT MP A449.38, A PRIVATE CRO
## 26
## 27
## 28                                                                                PARK, A PRIVATE CRO
## 29   PMENT TO TURN OVER ON SIDE. PILOT, FRACTURED ANKLE. TRACKMAN, FRACTURED RIB. ENGINEER, DISLOCA
## 30                                                LOADED WITH CHLORINE BLEACH AT MP22.83, A PRIVATE CRO
## 31   SSEELS RD CROSSING, CAUSING THE ENTIRE TRAIN CONSIST TO DERAIL.  ALL CARS, INCLUDING THE LOCOM
## 32    K 2.  UP TRAIN 3542W STRUCK THE REAR OF AMTRAK UNIT 2001, CAUSING UNIT 2001 TO DERAIL, ALONG
## 33
## 34                                                                                          N CRO
## 35    STATION.  THE COLLISION CAUSED THIRD RAIL POWER TO SHUT OFF.  POLICE WERE NOTIFIED TO RESPOND
## 36   TS DERAILED 6TH AND 7TH CARS ACCOUNT #2 RIGHT SIDE WHEEL BURNED OFF ON 6TH CAR.  TRAIN WAS PRE
## 37
## 38    TO SAME THE PMMO SWITCHER, SHOVING TRAIN 1742"S EQUIPMENT, WAS ATTEMPTING TO RESCUE/TOW 1342
## 39    67.7 MPH THROUGH 10 MPH CROSSOVER) CAUSING DERAILMENT.  THE RAILROAD IS IN THE PROCESS OF DET
## 40                                    THE TRUCK PULLED OUT AND FOULED BOTH MAIN TRACKS ON A PRIVATE CRO
## 41    M.  THE DRIVER OF THE VEHICLE DID NOT APPEAR TO SEE, OR HEAR THE TRAIN AT THE CROSSING, AND D
## 42   108, 107, 284, 156, AND 155 HIT THE WALL ON TRACK 0 AT SUBURBAN STATION, AND REQUESTED MEDICAL
## 43                              RS AT MP3.9 OF THE BNSF, AS A RESULT OF WIDE GAUGE DUE TO DETERIORATED
## 44                 ET INTERLOCKING.  TWO LOADED PASSENGER CARS ON TRAIN M611-26 DERAILED.  MILE POST I
## 45   ION OF RAIL WAS ADDED TO THE EAST RAIL TO REPLACE A SECTION OF RAIL CONTAINING A CRUSHED HEAD.
## 46   099, FAILURE OF THE AMTRAK ENGINEER TO COMPLY WITH THE REQUIREMENTS OF RESTRICTED SPEED IN CON
## 47                                                          T AT MP 77.6, EAST OF NEW HAVE
## 48              NTO ANOTHER VEHICLE CARRYING (6) SIX PASSENGERS.  TRAIN COCSISTED OF ARTICULATED EQUI
## 49                                                                                    BSOLUTE
## 50   ACITY 4900 GALLONS EA/SPILLED 2000 GALLONS FUEL EACH.  ACFX86305 SPILLED 60 TONS OF CHLORINE.
## 51                                                                          VENUE CROSSING MP
## 52
## 53    TRUCK THE TRUCK.  THE TRUCK EXPLODED INTO FIRE.  VEHICLE DRIVER AND OCCUPANTS WERE FATALLY IN
## 54    THEY WERE LINED FOR 7 TRACK. BRAKEMAN ON LEADING CAR FAILED TO RADIO OR APPLY BRAKES TO STOP
## 55   CROSSING, CAUSING INJURIES TO CREW AND CUSTOMERS AND DAMAGE TO EQUIPMENT, TRACK, 3RD RAIL AND
## 56                                                        LT OF A FIRE ON THE INSIDE OF DORM C
## 57                                                                                        OUN
## 58   ILED AS A RESULT OF COLLISION.  THERE WERE THREE INJURIES AND ONE FATALITY.  TRACTRO/TRAILER L
## 59   / FUEL CAPACITY 5000 GALLONS/SPILLED 1000 GALLONS DIESEL FUEL; CSXT7513/GE-C40-8-89/FUEL TANK
## 60                                                          SIVE EQUIPMENT AND TRACK D
## 61
## 62                                  OF THE 3 LOCOMOTIVES AND 4 CARS (1246/39032/32013/32075) AT MP
## 63
## 64          NG A LOAD OF ASPHALT AT MP420.08, A PRIVATE RD CROSSING CAUSING CC/6952 TO DERAIL LEAD
## 65                 CK LANDSLIDE, CAUSING THE DERAILMENT OF LOCOMOTIVE UNIT #54 AND 4 CARS IN THE CO
## 66                                      TY RD CROSSING, CAUSING ENGINE 97 TO DERAIL 1 WHEEL ON LEAD
## 67   LOCOMOTIVE (BNSF 68365 ) WAS DAMAGED.  REPORT TO DIESEL FUEL LEAKED FRO THE DUMP TRUCK.  NO  I
## 68
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## 69
## 70
## 71
## 72     STANDING ENGINE AND 2 CARS RESULTING IN DERAILMENT OF THREE ENGINES AND EIGHTEEN CARS AND RELE
## 73    E A UPRR LOCOMOTIVE ON THE SIDING. UPDATED 6/20/05 TO INCLUDE 8 ADDITIONAL CLASS "C" INJURIES.
## 74    NG AT APPROXIMATELY 44 MPH WHEN IT WAS STRUCK BY A 1994 FORD EXPLORER.  THE FORD EXPLORER WAS T
## 75     D THE M/W EQUIPMENT THAT WAS LOADED ON THEM.  MPBHG-15 HAD CAR TIMX33429 DERAIL & SPILL 129,74
## 76     T WORKING). AIR BRAKES BLED OFF, CAR ROLLED ONTO THE MAIN LINE AND COLLIDED WITH TRAIN #3 WHIC
## 77                                                                                          G ACCI
## 78     R TRAILER AND ENGINE 158 CAUGHT FIRE. ENGINE 158 ALSO DERAILED. THE TRACTOR TRAILER THAT WAS S
## 79                                                                              AS A RESULT OF RAIL SE
## 80                                                                                 UE TO WORN SWITCH P
## 81    964.1, MILITARY TRAIL. AFTER IMPACT, THE TRAILER SPUN AROUND AND STRUCK 4 VEHICLES, CAUSING IN.
## 82     SING WITH ACTIVATED WARNING DEVICES.  AT THE SAME TIME A VEHICLE APPROACHED THE CROSSING AND P
## 83    T METX178 ON M39-28.  A UTILITY PERSON IN A BUCKET TRUCK WORKING ON R-OF-W WAS ALSO INJURED WHI
## 84                                  DERAILED 3 CARS AND ENGINE V04 AT MP 79.7 DUE TO SWITCH POINT BEING
## 85  ED ON UP''S NO 1 MAIN''S LEFT-HAND CURVE.  TWO CONTRACTORS WERE KILLED AND TWO WERE INJURED.  THE
## 86    JURED.  TRUCK DRIVER WAS A FATALITY.  UP1977/UP2095, EM RGP60-90, FUEL CAP 3700 GAL, EACH SPILL
## 87
## 88                                                                                  ESTIGATION PER
## 89
## 90
## 91
## 92                                                  PLY BLOCKING DEVICE TO PROTECT CONFLICTING MOVEM
## 93
## 94                APPROX MP 560.9. TRAIN CONTAINED ARTICULATED EQUIPMENT. NO HAZARDOUS MATERAILS LEA
## 95                                                                                  13TH STREET CROS
## 96                                                                        P 27.98, A CROSSING ACCI
## 97               LEVATOR.  CAR DOWX 40077, STCC 4935665, UN2491, RELEASED 20,840 GALLONS OF ETHANOLA
## 98                                                                    ARS DERAILED DUE TO A BROKEN
## 99
## 100   A PRIVATE CROSSING.  THE CROSSING WAS EQUIPPED WITH STOP SIGNS AND YELLOW WARNING SIGN PRIOR TO
## 101                                                    STRUCK A DUMP TRUCK AT MP79.20, A PRIVATE CROS
## 102    WDL PUT THEIR TRAIN TOGETHER AND DEPARTED DE QUEEN WITH 22 LOADS AND 37 EMPTIES, WEST FOR VALL
## 103    OCKED IN THE REVERSE POSITION ALLOWING TRAIN 1926 TO DIVERT INTO SIDE TRACK AT APPROXIMATELY 4
## 104
## 105
## 106   RVICE TRACK\nM599\nFOREMAN FAILED TO SUPPLY SUPPLEMENTAL PROTECTION REQUIRED BY TIMETABLE INSTR
## 107   TER TRAIN OCCUPIED TRESTLE FROM WEST END WITH 2 ENGINES AND SLEEPER OUTFIT CAR, A LOUD POP WAS
## 108
## 109   R AND 2 PASSENGERS AND 1 PASSENGER FATALITY.  UP2453, EMD SD-60M-91, FUEL TANK CAP 5000 GAL, SE
## 110   .  VAN CAME TO A STOP AT THE CROSSING, TURNED ON HAZARD LITES AND THEN PROCEEDED ACROSS TRACKS
## 111                                          AT MP525.0.  THE CAUSE OF THE DERAILMENT IS WIDE TRACK
## 112                                                                                CLARIBEL RD CROS
## 113                                                                                  HARBOR RD CROS
## 114   RAIN #23M, CAUSING AMTRAK LOCOMOTIVE UNIT E/8 TO DERAIL.  THE OTHER METHOD OF OPERATION (ITEM #
## 115   UNT BROKE RAIL. \nLEAKING CARS GATX 44100 - STCC 4935240 - SODIUM HYDROXIDE RELEASED 11980 GALL
## 116                                     ABASH AVENUE CROSSING, RESULTING IN 4 FATALITIES IN THE VEH
## 117                                    DUSTRIAL WASTE BIN.   BOTH LOCOMOTIVES AND THE 9  CARS TO DE
## 118                                    IVE UNIT E/2012 AND THE 4 CARS TO DERAIL IN THE UPRIGHT POSI
## 119                                R-TRAILER TRUCK AT MP A487.72, DEAN FORREST RD, STATE RD 307 CROS
## 120
## 121   ON SOUTH END OF LOCOMOTIVE E/659 WITH UTILITY CONDUCTOR ON GROUND GUIDING MOVE, ROUGH COUPLED A
## 122    STUCK ON THE CROSSING, AT MP242.90 MILE STATION RD, CAUSING E/173 AND ALL 4 CARS TO DERAIL UPR
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## 123  EMONS AT MP959.88, KANSAS AVE CROSSING.  THE STRIKE CAUSED THE ENGINE TO SEPARATE FROM THE REST
## 124                                  EY LANE AND COUNTY RD CAUSING THE LOCOMOTIVE AND REAR CAR TO DE
## 125   A SEMI TRACTOR-TRAILER TRUCK AT MP349.12, PINELAND RD CROSSING, CAUSING THE 6 CARS TO DERAIL U
## 126   IG DID NOT STOP AT THE BRAUNTEX MATERIAL CROSSING STOP SIGN.  UP9657 STRUCK THE REAR OF THE TR
## 127  R INJURIES MAY BE UPDATED AS NECESSARY.\n\nQUES. 17 CHANGED TO 74 DEGREES PER NTSB DATA\nQUES.
## 128                                  AT MP58.30, FRY RD CROSSING.  OTHER METHOD OF OPERATION -
## 129   BUT WAS NOT COMPLETED AS THE SAFETY DEPT HAD NO INVOLVEMENT IN THE INVESTIGATION AND ITS CONCL
## 130   THE END OF THE ACE STATION TACKTHE IMPACT CAUSED THE LEADING CAB CAR ACE#3309 TO DERAIL THE LE
## 131        DRIVER AND CREW MEMBERS. PROTECTION ALSO AT CROSSING: ADVANCE WARNING; VEHICLE SPEED UNKN
## 132  H-RAIL VEHICLE SUFFERED A CUT ON LEFT SIDE OF BACK. THREE OF THE FOUR VEHICLE OCCUPANTS WERE IN
## 133       ECTION, CONDUCTOR NOTICED HIGH VERTICAL FLANGE ON LOUNGE CAR 33019 WHICH CAUSED THE DERAIL
## 134                                  ROSSING CAUSING LOCOMOTIVE E/32 TO DERAIL UPR
## 135                WELL HICKORY GROVE ROAD CROSSING CAUSING EXTENSIVE DAMAGE TO LOCOMOTIVE UNIT NC/
## 136  MP S212.4 RUMBLE ROAD, DOT # 718345H.  DUE TO DRIVER FAILED TO STOP WHILE TRAIN WAS APPROACHING
## 137
## 138                                  E ACRL DURING SNOWY AND ICY CONDIT
## 139  UCK A TRACTOR-TRAILER TRUCK AT MP 406.56, COUNTY RD 2126 CROSSING CAUSING EXTENSIVE DAMAGE TO E
## 140                                  RD CROS
## 141   BUCKET OF A FRONT END LOADER NORTH OF 36TH STREET STATION RESULTING IN THE DERAILMENT OF THE E
## 142
## 143                                  AD TRUCK  OF THE LEAD LOCOMO
## 144  WHEN THE TRAIN WENT INTO EMERGENCY AT THE MULFORD ROAD CROSSING ACCOUNT WASHOUT DUE TO HEAVY RA
## 145  ILER PORTTION OF TRACTOR TRAILER LOADED WITH ROCK.  LOCOMOTIVES UP6469 AND UP5675 DAMAGED AND E
## 146     BABINEAUX RD CROSSING.  THE TRACTOR-TRAILER WAS SHOVED INTO A PICK-UP TRUCK PARKED ON THE ST
## 147
## 148                                  RD CROSSING.  THE DRIVER OF THE VEHICLE WAS 82 YEARS OL
## 149                                  TATE RD 4, EAST LINCOLN AVE CROS
## 150                                  CORBETT HWY CROS
## 151        CKS AT MP209.21, MOORE ST CROSSING THAT WAS OUT OF SERVICE FOR RENOVATION WITH BARRACADE
## 152                                  SUBDIVI
## 153  N ACCESS ROAD WHEN IT PASSED A TRAIN THEN MADE A LEFT HAND TURN ON FM133 AND PROCEEDED WEST AT
## 154   AL AND STRUCK AMTRAK YARD CREW WS6A WITH 1 ENGINE AND 2 CARS.  THIS RESULTED IN THE DERAILMENT
## 155                                  MP4.50, LONYO RD CROSSING.  THE 261 RULE WAS IN EF
## 156  ATION EQUIPMENT AT MP H31.64, FIFTH ST CROSSING.  THE IMPACT CAUSED ENGINE UNIT RNCX1792 AND 1
## 157        A SEMI TRACTOR-TRAILER TRUCK AT MP 905.80, SHAFTER AVE CROSSING CAUSING UNIT C/8302 TO DE
## 158                                  CROS
## 159                                  , NN3 ROAD CROS
## 160                                  DAMAGES. CSX EMPLOYEES FOULED TRACK 2 WITHOUT PERMIS
## 161                                  T MP275.87, CAUSING EXTENSIVE TRACK AND EQUIPMENT DAM
## 162  ER CITI/FRA.  UPRR FILED SEPEARATE 6180.55A FOR RR EMPLOYEE FATALITY, INCIDENT 0310LA017.  PER
## 163                                  RESULTING IN RAKING COLLI
## 164                                  ST CROS
## 165  VAL TRAIN WAS MOVING INTO HOBOKEN TERMINAL ON TRACK 2.  AS THE TRAIN ENTERED THE TERMINAL, IT E
## 166                                  083.80, GREER RD CROS
## 167                                  AT MP1139.0, WERNER RD CROS
## 168
## 169
## 170           D STRUCK EASTBOUND TRAIN #420 AT THE CENTRAL AVE CROSSING CAUSING CAB CAR #8553 TO DE
## 171  AUSING BOTH ENGINES AND 6 CARS TO DERAIL. THERE ARE A TOTAL OF 15 EMPLOYEE INJURIES, WHICH INCL
## 172   ICH WAS FOULING US 84 CROSSING. DRIVER AND CREW MEMBERS INJURED. LOCOMOTIVES AND RAILCARS DERA
## 173  AME STUCK. OPERATOR AND TWO OCCUPANTS EXITED THE VEHICLE. THE NORTHBOUND TRAIN STRUCK THE VEHIC
## 174  AD CAR (CAB CAR).  M636-13 WAS TRAVELLING SOUTHBOUND ON MAIN TRACK #3 AT 51 MPH, MP 18.77.  THE
## 175                                  AT MP318.6, US HW
## 176                                  QUIPMENT AND THIRD RAIL AS WELL AS DEATH OF THE TRUCK DR
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## 177                                                                 K A TOW TRUCK AT MP16.18, SMITH ST CROS
## 178          TRAILER TRUCK AT MP68.22, PORTAGE RD CROSSING CAUSING ENGINE UNIT 128 AND 2 CARS TO DE
## 179                                                                                                  S
## 180                                                                 TED AS RECEIVED.  QUES. 37 REVISED 11/3
## 181  R 6298, UTLX 207398, OCPX80323, OCPX 80234, UTLX 98097 AND UTLX 98041 DERAILED.  APPROXIMATELY
## 182  H OF THE APPROACHING TRAIN.  VEHICLE WAS TRAVELING EAST IN THE WESTBOUND LANE AND THE TRAIN WAS
## 183                                       FIELD DRIVE CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $82,51
## 184  ED THE ENTIRE TRAIN AS A RESULT OF A MISALIGNED SWITCH. THERE WERE A TOTAL OF 4 EMPLOYEE INJURI
## 185                                                                              E STREET CROS
## 186  DING.  IT WAS DETERMINED THAT THE TURBO ON ENGINE UNIT 71 WAS RUNNING ON ITS OWN OIL CAUSING HI
## 187                                                                    P734.94, ELTON RD CROS
## 188    THE DRIVER DISREGARDED 8-9 SECONDS OF FLASHING WARNING LIGHTS AND BELLS BEFORE HE DROVE ONTO
## 189                                                                 NSPORTED FROM THE TRAIN FOR UNKNOWN IN.
## 190
## 191                                  NUE 56 RD CROSSING CAUSING EXTENSIVE DAMAGE TO THE LEAD UNIT E/
## 192                                                                    6.56, A PRIVATE RD CROS
## 193  EN LEAD. THE CREW HAD MADE SEVERAL SWITCHING MOVES BEFORE KICKING 9 CARS AGAINST 12 CARS WITH T
## 194   BY A TRACTOR-TRAILER TRUCK CAUSING 2 CARS AND THE LOCOMOTIVE TO DERAIL AT MP959.88, KANSAS AVE
## 195                                                                DALE AND DILLION ROADS CROS
## 196   , SWINGING TRAILER INTO OCCUPIED PSGR CAR. 3 OF 4 OCCUPANTS IN CAR INJURED, TRUCK DRIVER UNIN.
## 197                                                 WAY GRADE CROSSING DUE TO HIGHWAY USER INATTENTIVE
## 198                                                          D EMPLOYEE AND 22 PASSENGERS WERE IN.
## 199  ME TO A STOP WITH A PORTION OF THE TRAIN FOULING TRACK #2.  TRAIN #1548 WAS THEN STRUCK BY WEST
## 200                                          AS CARRYING A CRANE WHICH WAS HUNG UP ON A PRIVATE CROS
## 201                                                ET CROSSING LOCATED AT MP 19.2. 9 FRA INJU
## 202  STATING THAT HIS TRAIN HAD STRUCK A PICKUP TRUCK AT MAIN ST CROSSING IN DELRAN. NJ.  THE PICKUP
## 203                                                 4020, CAR #6501. WHEELSETS REPLACED 5 CARS. 7 INJU
## 204                                                         266.  PASSENGER INJURY COUNT UPDATED 10/1
## 205                                                                       S FATALLY IN.
## 206  RUCK THAT FALIED TO STOP AT MP 133.43, RED PINE RD CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $45,8
## 207               ANTS OF THE TRUCK. PROTECTION ALSO AT CROSSING: ADVANCE WARNING AND PAVEMENT MARK
## 208                                                                                 N D-GALED
## 209  T MP 151.90, WESTFIELD RD CROSSING CAUSING THE LEAD UNIT E/824 TO DERAIL.  SIX NON-OPERATING EM
## 210   SPEED AT WHICH THE TRAIN WAS OPERATED EXCEEDED THE MAXIMUM AUTHORIZED LIMIT BY AT LEAST 10 MPH
## 211   USED A HIGHWAY OVERPASS TO COLLAPSE AND INJURY TO FIVE MOTORISTS THAT WERE USING THE ROADWAY.
## 212   THIS CAUSED A TRAIN DERAILMENT AND AN EXPLOSION THAT DAMAGED MANY NEARBY BUSINESSES AND HOMES
## 213                                BROKEN RAIL UNDER TRAIN MOVEMENT.  AMTRAKS EQUIPMENT DAMAGE IS $65,00
## 214         ER APPLICATOR) AT MP 61.60, COUNTY RD 275 CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $250,00
## 215  ROD OF THAT SWITCH WAS DETERMINED TO HAVE CRACKED WHICH LEFT THE SWITCH POINTS FREE FLOATING LE
## 216   E CUTTING TRUCK AND WOOD CHIPPING MACHINERY AT SILVER LAKE CROSSING.  THE DEBRIS FROM THE TRUC
## 217  AS STRUCK. SUSTAINED MULTIPLE FATAL INJURIES AND EXPIRED. 7 PASSENGERS ALLEGED INJURY FROM THE
## 218  A TRACTOR-TRAILER TRUCK AT MP1065.26, WINTON WAY CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $100,00
## 219  AT MP 846.72, DIAMOND B TRUCKING, A PRIVATE CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $250,000.00
## 220                          Q0093.9, COUNTY ROAD 200N CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $193,00
## 221                                                  R RD CROSSING. AMTRAKS EQUIPMENT DAMAGE IS $13,71
## 222                                                          ND GATES WHICH CAUSED MULTIPLE FATALI
## 223                 E SEMI TRAILER WAS FOULING TRACKS AND WAS STRUCK BY METRA TRAIN #2102 CAB CAR #
## 224               NUE 12 CROSSING. HIGHWAY USER SPEED IS UNKNOWN. AMTRAKS EQUIPMENT DAMAGE IS $25,43
## 225                                                TO DERAIL.  AMTRAKS EQUIPMENT DAMAGE IS $39,3
## 226                                     .16, FM 0794 RD CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $27,45
## 227                                    3.36, FOREST RD CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $20,00
## 228  T MP 64.9, NORTHFIELD, VT.  THE CAUSE OF THE DERAILMENT WAS TRAIN 55 STRUCK A ROCK SLIDE ON THE
## 229                                          32ND STREET CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $62,08
## 230  E ENVIRONMENTAL CONDITION - FLOOD. 4000 GALLONS OF FUEL WERE RELEASED FROM THE LOCOMOTIVES. PER
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## 231   HE FIRST 4 CARS IN THE CONSIST COMPLETELY DERAILED, WITH THE FIRST 3 CARS ON THEIR SIDE AND TH
## 232                                                                SSING AT COMMERCE STREET IN VALHALL
## 233   ESTER AVE. DELRAN NJ. THE AUTOMOBILE WAS TRAVELING SOUTH ON RIVER ROAD AND TURNED LEFT IN FRONT
## 234    ETE BRIDGE GIRDER ONTO NEWLY CONSTRUCTED CONCRETE AND STEEL PIERS.  THE CRANE WAS SITTING ON
## 235   ITY ST/POPE ST CROSSING. THREE (3) TRAIN ATTENDANTS ALSO REPORTED INJURIES. AMTRAKS EQUIPMENT
## 236   ND NOTICED THE REAR END OF A TRACTOR TRAILER BLOCKING THE FAIRWAY CROSSING.  THE ENGINEER AND
## 237   F THE RICE AVENUE CROSSING.  ALL CARS AND THE ENGINE DERAILED.  NOTE: QUES 11 UPDATED 4/1/15.\
## 238                   9 MILES AFTER IT DERAILED AROUND MT. TABOR. THE CAR CAUGHT FIRE AND RELEASED HA
## 239   IVER RD CROSSING.  THE DRIVER IN THE VEHICLE STOPPED ON THE TRACKS FOR AN UNKNOWN REASON.  UPS
## 240                                                                              AMAGE IS $10,1
## 241   E LOAD AT MP A89.81, HALIFAX RD CROSSING, CAUSING LOCOMOTIVE E/185 AND BAGGAGE CAR C/1755 TO D
## 242                        SAND AT MP 180.92, 11TH AVENUE CROSSING. AMTRAKS EQUIPMENT DAMAGE IS $230,0
## 243    IVATE RD CROSSING. THE AGE OF THE HIGHWAY USER IS UNKNOWN.  AMTRAKS EQUIPMENT DAMAGE IS $23,6
## 244   ER SIDE DOOR OF THE LOG TRUCK TRAVELING 45 MPH.  THE TRUCK WAS TRAVELING EASTBOUND ON MT. PLEA
## 245   K AN OCCUPIED VEHICLE AT MP 982.08, CONEJO AVE CROSSING. THE CREWS HOURS OF SERVICE ARE UNKNOW
## 246   9 STRUCK A DUMP TRUCK THAT WAS PARKED  IN THE FOUL OF THE TRACK  JUST OFF THE WEST RAIL AT THE
## 247   MP 743.17, EHLEN ROAD (MAIN ST) CROSSING.  THE AGE OF THE DRIVER WAS NOT AVAILABLE.  AMTRAKS E
## 248                                                                              PARK RD CRO
## 249
## 250   .  THE CAUSE OF THE DERAILMENT WAS DETERMINED TO BE TRACK DAMAGE CAUSED BY NON-RAILROAD INTERF
## 251
## 252                                    40.78, LINDEN RD CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $120,6
## 253   NGLE TRACK OVER MAIN ST. IN RIVERTON, NJ, STRUCK AN AUTOMOBILE. THE AUTOMOBILE DRIVER MADE AN
## 254   9 IS $3,159,938.00 AND THE EQUIPMENT DAMAGE FOR THE BACKHOE (A 48533) IS $138,363.00.  THE FOR
## 255                                    1012.1, A PRIVATE CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $83,7
## 256                                         A COUNTY RD CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $34,6
## 257    THIS LOCATION.  DRIVER OF THE SEMI WAS NOT INJURED AND HIS AGE WAS NOT AVAILABLE.  AMTRAKS EQ
## 258    ENGINEER OBSERVED THE VEHICLE ON THE TRACKS AND PLACED THE TRAIN IN EMERGENCY. TRAIN IMPACTED
## 259   ET CENTER BLVD CROSSING.  VEHICLE PULLED FORWARD IN FRONT OF TRAIN AS TRAIN ARRIVED AT THE CRO
## 260                                          TH STREET CROSSING.  AMTRAKS EQUIPMENT DAMAGE IS $10,5
## 261   ME STALLED ON THE TRACKS WITH THE CROSSING GATES DOWN AT MP 6.0, BANCROFT WAY CROSSING.  AMTRA
## 262   AROUND A CURVE AND STRUCK A TREE THAT WAS LYING ACROSS THE TRACKS AT MP 34.00. THE IMPACT PUSH
## 263                                    ACUATED. CONFIRMED SPEED EXCEEDED MAXIMUM SPEED FOR TRACK
## 264                                                                        ENT DAMAGE IS $61,0
## 265   S ROAD.  SOME OF THE CARS DERAILED ONTO THE I-5 FREEWAY CAUSING DAMAGE TO A NUMBER OF HIGHWAY
## 266   RAILED LEAD LOCO E/467 ON ITS SIDE AND 3 CARS UPRIGHT AT MP 14.4 NORTH OF OLYMPIA STATION.  TH
## 267   UCK ON THE TRACKS AT MP 284.78, POLSON ST CROSSING.  THE TRUCK DRIVER SAW TRAIN APPROACHING AN
## 268    -UP OCCURRING AT BF 192.3. THE CONDUCTOR WALKED BACK AND FOUND 32 CARS DERAILED WITH A PROPAN
## 269              O A TRACK DEFECT ON TRACK #3 ON THE NEW HAVEN LINE BETWEEN CATENARY 216 AND CATENAR
## 270                                                                  AT MP 919.47.  NOT AT A CRO
## 271   NEPTUNE RD CROSSING.  THE TRAIN CAME TO A STOP BLOCKING RECKER HIGHWAY (623082F). HIGHWAY USER
## 272    TRACTOR-TRAILER TRUCK AT MP 813.77, SOUTH POINCIANNA BLVD CROSSING.  DRIVER IN VEHICLE STOPPE
## 273                         L UPRIGHT WHILE PULLING INTO CHICAGO UNION STATION.  197 PASSENGERS DETR
## 274   NG THE CROSSING, THE LOCOMOTIVE HORN WAS BLOWING AND THE BELL RINGING, THIS ACCIDENT WAS RECOR
## 275                                                          TH ACTIVATED GATES.  NO INJURIES TO UP
## 276                                                                RIVING NY PENN STATION. 7 INJ
## 277    GAPPED SWITCH AND STRUCK INTO THE 7TH AND 8TH CAR OF ARRIVING NJT TRAIN #6214 ON THE M LADDER
## 278   553 AND TRAILING CARS 7554 AND 7068.\n\nUPDATED ONE ADDITIONAL TRAIN PASSENGER/CUSTOMER NON FA
## 279    ED ON THE UP TRACKS. AFTER APPROXIMATELY 90 SECONDS, THE GRADE CROSSING WARNING DEVICES AND R
## 280   RANCE SIGNS.  PROTECTION ALSO AT CROSSING: PAVEMENT MARKINGS (STOP LINES & RR XING SYMBOLS). B
## 281     TRUCK AT MP 880.23, SR 700/US 98 AND COWHOUSE RD CROSSING.  THE DRIVER IN THE PICK-UP ATTEMP
## 282   ARBAGE TRUCK AT A CROSSING AT MP 195.85. AS A RESULT, LOCOMOTIVE E/145 DERAILED. THE CHARTERED
## 283                         37.20 ON THE CN MCCOMB SUBDIVISION.  THE DRIVER OF THE TRUCK WAS FATALLY IN
## 284     7.5, CRAVENS RD CROSSING.  THERE WERE NO INJURIES TO REPORT.  HIGHWAY USER AGE AND GENDER UN
```

```
## 285                                                                                                  Y RD MP
## 286     RD CROSSING.  THE VEHICLE, A PICKUP TRUCK WAS STOPPED ON THE CROSSING WHEN THE TOWING STRAP
## 287    A STORAGE TRACK DUE TO AN IMPROPERLY LINES SWITCH, WHERE IT COLLIDED WITH STANDING NORTHBOUND
## 288                                                ED VEHICLE AT MP 208.26, VERMONTVILLE HIGHWAY CROS
## 289    ROACHING SAVANNAH STATION. WHILE REVERSING INTO SAVANNAH STATION FROM THE NORTH END DUE TO SNO
## 290                             SING: ADVANCE WARNING AND PAVEMENT MARKINGS (STOP LINES & RR XING SYM
## 291   ARM VEHICLE WAS REPORTEDLY CARRYING A TANKER WITH ANHYDROUS AMMONIA. THE OPERATOR OF THE FARM V
## 292                                UCK AN OCCUPIED FARM TRACTOR AT MP 78.56, BENDERS RD, A PRIVATE CROS
## 293   T THROUGH THE WINDSHIELD OF CAB CAR #7003 CAUSING SERIOUS INJURIES TO THE ENGINEER. CONFIRMED S
## 294                                                          ON IT WHILE FOULING TRACK #2. 2 INJU
## 295                                               NG.  THE RAILROAD CROSSING ARMS LOWERED ONTO THE TRA
## 296                                                                        0, A PUBLIC CROS
## 297   4.65, COUNTY ROAD 621 CROSSING.  THE LEAD TRUCK OF LOCOMOTIVE E/20 DERAILED AND THERE WAS SIGNI
## 298   CCOMB SUBDIVISION. THE SEMI OPERATED THROUGH THE CROSSING INTO THE PATH OF THE TRAIN AND BECAME
## 299                             , S. ELM STREET CROSSING.  THE TRUCK WAS CAUGHT BETWEEN THE CROSSING O
## 300                                                                              E WERE FATALI
## 301    ING TRAIN. MOTORCYCLE ENTERED THE CROSSING AS THE TRAIN TRANSOTED THE CROSSING AND RAN INTO SI
## 302    THE DETACHED TRAILER OF A TRUCK.  REGARDING THE RAILROAD EMPLOYEE COUNTS, THERE WERE FIVE EMPL
## 303                                                  CTOR-TRAILER TRUCK AT NORTH CLARK RD CROS
## 304
## 305                                               ULLING A SALT WATER TANK AT MP 186.58, CESSNA RD CRO
## 306    DERAILMENT STARTING FROM 3RD CAR BACK IN TRAIN. EVACUTED 280 RESIDENTS, INJURIES UNKNOWN AT TI
## 307    SING. THIS VEHICLE HAD PREVIOUSLY STRUCK TRAIN 1260 AT THIS SAME CROSSING. CURRENTLY, WE ARE U
## 308                               .4, STUENKEL ROAD CROSSING CAUSING THE LOCOMOTIVE AND 5 CARS TO DE
##                                                                                                      NA
## 1
## 2
## 3
## 4   IFIED BY PHONE TO EVACUATE.  ALL REMAINING EMPLOYEES WERE EVACUATED ON A TRAIN THAT DEPARTED THE
## 5
## 6
## 7                                                                                ACT AND FELT RIGHT KNEE P
## 8
## 9
## 10
## 11
## 12    HWY 212 INTO THE PATH OF TRAIN.  THE DRIVER OF THE BUS WAS CHARGED WITH FAILURE TO YIELD THE RI
## 13  ERAILED AT MP 56.4 AFTER A RAIL BROKE UNDER THE MOVING TRAIN.  THREE PASSENGER CARS DERAILED WHIC
## 14  RELEASE FROM ELEVEN CARS (SEE APPENDED LIST) RESULTING IN SPILL OF APPROXIMATELY 590 TONS.  EVACU
## 15
## 16  RACK WAS FOULED AND DIDN’’T LOCKOUT TRACK WHICH ALLOWED NORTHBOUND AMTRAK #14 TO ENTER LOCATION,
## 17
## 18                                                                                                   KIL
## 19
## 20  N ALLOWING HIM TO PULL IN BEHIND - HE FAILED TO OBSERVE 8017 STOP AND STRUCK REAR OF TRAIN.  ENGI
## 21
## 22                                          F ENGINE(S) OR CAR(S) WITHOUT AUTHORITY (RAILROAD EMPLOYE
## 23
## 24
## 25
## 26
## 27
## 28
## 29                                                                                                   NGI
```

```
## 30
## 31                                                                                                DERAILED IN AN UPRIGHT POSITI
## 32                                                                                                                          CA
## 33
## 34
## 35  LL AS HOBOKEN EMS.  THE CARS IN CONSIST WERE 808-827-857-627-656-147-619.  THE TRAIN TRAVELED 15
## 36                             Y INSTRUCTED TO STOP AND INSPECT FOR OVERHEADING OR ANY UNUSUAL CONDITI
## 37
## 38                           UPLED ONTO SAME AT APPROXIMATELY 12MPH CAUSING DAMAGE TO EQUIPMENT AND TRA
## 39  NG THE ACTUAL NUMBER OF FRA REPORTABLE INJURIES INVOLVED IN THIS DERAILMENT VIA WORKING WITH THEI
## 40
## 41                                                                                              SLOW DOWN TO AVOID THE TRA
## 42                                                                                                                          TI
## 43
## 44
## 45  ESSIVE FORCES, COMBINED WITH POOR TIE CONDITIONS,CAUSED THE EAST RAIL TO ROLL OUTWARD UNDER MOVEI
## 46  NG THE MOVEMENT OF HIS TRAIN. LONG ISLAND RAILROAD - EQUIPMENT WAS STRUCK FROM BEHIND BY AMTRAK I
## 47
## 48
## 49
## 50                                                                  LCOHOL POSITIVE - NOT DETERMINED TO BE A CAUSAL FACT
## 51
## 52
## 53                                                                                            TRAIN CREW MEMBER WAS INJURI
## 54  NT. TRAIN STRUCK COACHES AT 14 MPH HURTING 3 MECHANICAL EMPLOYEES AND THEMSELVES. 100 FEET OF RAI
## 55                                                                                                  OSSING PROTECTI
## 56
## 57
## 58                                                                                                0 GALLONS OF DIESEL FU
## 59  TY 5,000 GALLONS/SPILLED 10 GALLONS OF DIESEL FUEL.  THE HIGHWAY USER WHO WAS KILLED WAS ALSO A I
## 60
## 61
## 62
## 63
## 64
## 65
## 66
## 67                                      S TO BNSF EMPLOYEES.  DRIVER OF DUMP TRUCK SUFFERED FATAL INJU
## 68
## 69
## 70
## 71
## 72  F HAZARDOUS MATERIAL.  UTLX 900270 RELEASED APPROXIMATELY 120,000 POUNDS OF CHLORINE.  FRA TRACK
## 73   TED 7/18/05 TO ADD 2 ADDITIONAL CLASS "C" INJURIES.  UPDATED 8/16/05 TO ADD 12 ADDITIONAL CLASS
## 74  ING FROM EAST TO WEST, AND HIT 3501 A-UNIT JUST NORTH OF THE EAST DOOR.  NO SKID MARKS FROM THE I
## 75                                                                                                  OF PROPYLI
## 76         STOPPED AT MILEPOST #5. END CAR OF THE TRAIN HAD 1 TUCK DERAILED.  REFER TO INCIDENT #2005
## 77
## 78  BY THE TRAIN HAD BEEN FOLLOWING ANOTHER TRACTOR TRAILER ACROSS THE CROSSING. THE FIRST TRACTOR TI
## 79
## 80
## 81
## 82  TO STOP FOR THE ACTIVATED FLASHERS AND WAS STRUCK BY THE ONCOMING TRAIN.  THREE OF THE FOUR OCCUI
## 83                                                                                                  UCK BY DEBI
```

```
## 84
## 85  IST IS AS FOLLOWS:  2 LOCOMOTIVES, 2 CREW/SLEEPER CARS (ONE DERAILED) & 9 OTHER CARS (1 COMPUTER
## 86                                                                                00 GAL OF DIESEL FU
## 87
## 88
## 89
## 90
## 91
## 92
## 93
## 94
## 95
## 96
## 97
## 98
## 99
## 100                                                                                                 SI
## 101
## 102  OK AT MILE POST 0.  THE CREW STOPPED IN WRIGHT CITY, OK AT MILE POST 8 TO SET OUT 38 CARS ON THI
## 103                                                                RESULTING IN DERAILMENT OF SA
## 104
## 105
## 106 N\n\n\n\n\nTRAIN 322 STRUCK THE MAINTENANCE OF WAY EQUIPMENT A SWING LOADER T47948 RESULTING IN I
## 107                                                          .  TRESTLE COLLAPSED FROM THE EAST I
## 108
## 109                                                                              5 GAL OF DIESEL FU
## 110                                                             MPLOYEES INJURED, DRIVER A FATALI
## 111
## 112
## 113
## 114                                                                                               AS A
## 115 TILX 110109 - STCC 4930228 - HYDROCHLORIC ACID RELEASED 18260 GALLONS\n\nTRACK IS NOT CWR\n5/30/0
## 116
## 117
## 118
## 119
## 120
## 121 T TRAIN 98 CONSIST AS A RESULT OF THE ENGINEER APPLYING THE THROTTLE WHEN HE SHOULD HAVE APPLIED
## 122
## 123  HE TRAIN AND THE FIRST CAR BEHIND THE ENGINE DERAILED.  THE STRIKE ALSO CAUSED THE AMTRAK ENGINE
## 124
## 125
## 126                                                                  DRIVER WAS INJURED.  RAIL=
## 127 ANGED FROM 4 TO 3\nQUES. 23 DATA ADDED PER FRA REQUEST.\nQUES. 38 CHANGED TO H220 TO MATCH REPORT
## 128
## 129 S THUS WE WERE UNABLE TO MAKE AN OFFICIAL DETERMINATION OF CAUSES.\nCURRENT TOTAL PASSENGER INJU
## 130              UCK. AS A REULT OF THE INCIDENT 1 EMPLOYEE AND 7 PASSENGERS RECEIVED MEDICAL ATTENTI
## 131
## 132                                                  . FORM 54 Q30 CTC.  CORRECTED FORM 54 C
## 133
## 134
## 135
## 136                                                                                                 SI
## 137
```

```
## 138
## 139                                                                                                  OCOMOTIVE UNIT E/
## 140
## 141 RAIN #229 WAS A SINGLE UNIT CONSIST, PROCEEDING SOUTHBOUND (RAILROAD DIRECTION) UNDER PERMISSIVE
## 142
## 143
## 144 N THE AREA.  A TOTAL OF 19 LOADED ETHANOL (ALCOHOLS, N.O.S.) CARS WERE DERAILED. SIXTEEN OF THE
## 145                                ED ALONG WITH SEVERAL CARS.  DRIVER WAS ISSUED A CITATION.  RAIL =
## 146
## 147
## 148
## 149
## 150
## 151
## 152
## 153  TIME IT WAS STRUCK AT THE CROSSING DUE TO FAILURE TO YIELD RIGHT OF WAY TO TRAIN.  DRIVER WAS A
## 154                                                                                  CARS OF THE 7 MACZ C
## 155
## 156                                          CAR TO CATCH FIRE, WITH THE ENTIRE TRAIN CONSIST DERAI
## 157
## 158
## 159
## 160
## 161
## 162   FRA 7/27/10 SINCE UPRR FILED 55A FOR THEIR EMPLOYEE, SCAX 55A (032010) FOR TRESPASSER WAS DELE
## 163
## 164
## 165  TIMING SIGNAL 94Z, AND STARTED TO ACCELERATE.  AN EMERGENCY BRAKE APPLICATION WAS INITIATED APP
## 166
## 167
## 168
## 169
## 170
## 171 0 TRAIN ATTENDANTS AND ARE UNABLE TO BE CAPTURED UNDER 40 .ENGINEERS/OPERATORS 41. FIREMEN 42. C
## 172                           APPROXIMATELY 18,000 GALLONS OF DIESEL FUEL SPILLED FROM LOCOMOTIVE, UP9
## 173 ICH BECAME ENGULFED IN FLAMES. THE TRAIN WAS EVACUATED AND SOME PASSENGERS SUSTAINED INJURIES DU
## 174 K ALLEGEDLY DROVE AROUND THE GATES & THE TRUCK DRIVER WAS FATALLY INJURED.  THERE WERE INJURIES
## 175
## 176
## 177
## 178
## 179
## 180
## 181 0 GALLONS OF HAZARDOUS MATERIAL PRODUCT (VINYL CHLORIDE) RELEASED FROM TANK CAR OCPX 80234.  APP
## 182 ELING SOUTH.  CROSSING ARMS, CROSSING AUDIBLE WARNINGS, AND CROSSING FLASHING LIGHTS WERE FUNCTI
## 183
## 184                                                                  NCLUDING 1 LEAD SERVICE ATTEND
## 185
## 186                                                                                                M
## 187
## 188 ROSSING AND IN FRONT OF ONCOMING TRAIN.  THE CROSSING GATES CAME DOWN AT THE FRONT OF THE LONG T
## 189
## 190
## 191
```

```
## 192
## 193 BRAKES APPLIED IN E-TRACK. THE CARS WERE RELEASED INTO THE TRACK AT 8 MPH AS CONFIRMED BY THE DOU
## 194                                                                                                 SI
## 195
## 196 ENGINEER AND TWO PSGRS REPORTED INJURY. MODERATE DAMAGE TO TRAIN, TOTALED TRAILER AND PASSENGER V
## 197
## 198
## 199                                D TRAIN #1581 AFTER TRAIN #1548 CAME TO A STOP DUE TO THE DERAILME
## 200
## 201
## 202 K WAS FACING NORTHBOUND ON RIVER.  WAITING AT THE TRAFFIC LIGHT TO MAKE A RIGHT TURN ACROSS THE N
## 203
## 204
## 205
## 206
## 207
## 208
## 209 ES INCLUDED IN THE TOTAL INJURED EMPLOYEES COUNT.  AMTRAKS EQUIPMENT DAMAGE IS $125,985.00. SIX (
## 210                                                  WO LOCATIONS.  H199 - UNDIAGNOSED MEDICAL CONDIT
## 211         CREW MEMBERS REPORTED INJURIES AS DID SOME OF THE HIGHWAY USERS.  BNSF DAMAGES ARE $643,5
## 212  128076 HAD AN ESTIMATED 218,279 POUNDS OF SODIUM CHLORATE RELEASED AS A RESULT OF THIS CROSSING
## 213
## 214
## 215   TO THE DERAILMENT.  IN TOTAL 2 LOCOMOTIVES AND 4 CARS DERAILED.  3 CARS CARRIED PASSENGERS.  TH
## 216 MACHINERY BECAME WEDGED UNER CC/9639 CAUSING THE UNIT TO DERAIL AND A FIRE TO START BURNING.  AMT
## 217  T AND WERE TRANSPORTED TO A MEDICAL FACILITY FOR EVALUATION. CAB CAR SUSTAINED CONSIDERABLE DAMA
## 218
## 219 E WERE A TOTAL OF FIVE (5) EMPLOYEE NON-FATAL INJURIES. FOUR (4) CREW MEMBERS AND ONE (1) ONBOARD
## 220
## 221
## 222
## 223
## 224
## 225
## 226
## 227
## 228                                                    KS.  AMTRAKS EQUIPMENT DAMAGE IS $4,148,125
## 229
## 230 ROAD, THE TRAIN CREW IN #40-#43 CONSISTED OF THE ENGINEER AND THE CONDUCTOR.  THERE WERE ALSO 2 P
## 231 NE CAME TO REST A DISTANCE AWAY IN CONRAIL FRANKFORD YARD. THREE (3) CLASS B EMPLOYEES WERE DEADH
## 232
## 233 RAIN 284. A 2 YEAR OLD CHILD IN THE AUTOMOBILE WAS AIR LIFTED TO COOPER MEDICAL CENTER CAMDEN NJ
## 234 TEMPORARY STEEL SPANS SUPPORTED BY A FRAMED TIMBER BENT ON THE SOUTH END.  THE FRAMED TIMBER BENT
## 235                                                                                  IS $510,025
## 236 TOR PLACED TRAIN INTO EMERGENCY PRIOR TO IMPACTING THE TRAILER.  THE TRAILER THEN COLLIDED WITH S
## 237       NJURY ADDED 4-21-15.  QUESTIONS 17, 18 & 24 UPDATED 4.30.15 PER FRA.  QUES. 28 UPDATED 7-17
## 238
## 239                          ENANCE OF WAY DAMAGE IS $13,993.00.  AMTRAKS EQUIPMENT DAMAGE IS $26,000
## 240
## 241   THE LOCOMOTIVE DERAILED ON ITS SIDE AND THE BAGGAGE CAR DERAILED UPRIGHT.  AMTRAKS EQUIPMENT DA
## 242
## 243
## 244 HURCH ROAD AND FAILED TO STOP AT THE CROSSING. THE DRIVER OF THE TRUCK WAS THE SOLE OCCUPANT AND
## 245                                                  HIS TIME.   AMTRAKS EQUIPMENT DAMAGE IS $28,809
```

```
## 246 F THE TIES.THIS COLLISION RESULTED IN 7 PASSENGER BEING TRANSPORTED TO THE HOSPITAL  WITH POSSIBL
## 247                                                                          ED EQUIPMENT DAMAGE IS $53,662
## 248
## 249
## 250                                      WITH TRACK STRUCTURE.  AMTRAKS EQUIPMENT DAMAGE IS $2,784,355
## 251
## 252
## 253 L LEFT TURN IN FRONT OF THE LRV. CROSSING GATES AND FLASHERS WERE ALL OPERATIONAL AT THE TIME OF
## 254 AILED TO CLEAR EQUIPMENT FROM TRACK PRIOR TO RELEASING FOUL TIME.  THE POSITIVE DRUG RESULTS WERE
## 255
## 256
## 257                                                                                    T DAMAGE IS $15,066
## 258 RUCK AND PUSHED IT UP THE ROW. THE LEAD CAR SUBSEQUENTLY DERAILED BUT REMAINED UPRIGHT. SEVERAL I
## 259                                                                      AGE OF THE DRIVER WAS NOT AVAILAB
## 260
## 261                                                                         IPMENT DAMAGE IS $34,667
## 262  LEAD CAB CAR OFF THE TRACKS, DOWN THE ALAMEDA CREEK EMBANKMENT AND COMING TO REST ON ITS SIDE IN
## 263
## 264
## 265  ES.  THE TRAILING LOCOMOTIVE REMAINED UPRIGHT.  TWO OF THE FIVE EMPLOYEES THAT WERE INJURED WERE
## 266 E OF THE DERAILMENT -- FAILED TO SLOW TO 40 MPH FOR AN APPROACH SIGNAL AT MP 16.6 AND SUBSEQUENTL
## 267 ED OUT OF THE CAB BEFORE THE TRAIN STRUCK.  THE AGE AND GENDER OF THE TRUCK DRIVER WAS NOT AVAILA
## 268 CAR CBTX 781553 ON FIRE. HAZMAT RELEASE: CBTX 781553 RELEASED 29,712 GALLONS OF PROPANE LIQUEFIED
## 269
## 270
## 271                                                          S UNKNOWN. HIGHWAY USER SPEED IS AN ESTIM
## 272    HE TRACKS AND DID NOT MOVE IN TIME BEFORE THE COLLISION.  AMTRAKS EQUIPMENT DAMAGE IS $22,421
## 273
## 274  A SURVALANCE CAMERA DURING THE ENTIRE INCIDENT. WE OPERATE BY TRACK WARRANT CONTROLL AND BULLITA
## 275
## 276
## 277                                                                              PENN STATION. 4 INJURI
## 278                                                        SE AND UPDATED FORM TO REFLECT TODAY''S DA
## 279 APPARATUS ACTIVATED AND THE DRIVER MOVED HIS VEHICLE FURTHER INTO THE CROSSING AND STOPPED IN THE
## 280                                                                    AGE IS ESTIMATED AT $500,0
## 281 BEAT THE TRAIN ACROSS THE TRACKS AND THE FRONT OF THE TRUCK STRUCK THE LEFT SIDE OF THE TRAIN.  A
## 282  WAS CARRYING MEMBERS OF CONGRESS. THE TRUCK WENT AROUND GATE AND STOPPED ON THE TRACKS. THE CONR
## 283
## 284
## 285
## 286                                                                TRAIN WAS TEMINATED AT THE LOCATI
## 287 REIGHT TRAIN, F777-03, ON THE CSX COLUMBIA SUBDIVISION, AT MP 367.1. AS A RESULT E/47 DERAILED ON
## 288
## 289 ICE PREVENTING THE DISPATCHER FROM LINING TRAIN THRU THE SOUTH END OF STATION (NORMAL ROUTE) THE
## 290
## 291                                                                                 E WAS FATALLY INJUR
## 292
## 293
## 294
## 295
## 296
## 297                                                                T STRUCTURAL DAMAGE TO THE ENGINE UN
## 298                                                                                  ED AROUND EA
## 299
```

```
## 300
## 301 TRAIN . MOTORCYCLE CAUGHT FIRE AND THE FLAMES ENTERED THE DMU ENGINE AIR INTAKE, DAMAGING THE ENG
## 302  ON BOARD, TWO WERE CREW MEMBERS WORKING THE TRAIN, TWO WERE DEADHEADING EMPLOYEES, AND ONE WAS A
## 303
## 304
## 305
## 306 ME. CAR OLNX32000 RELEASED14000 GALLONS HYDROCHHLORIC ACID, CAR TILX200141 RELEASED 12000 GALLONS
## 307 TO DETERMINE WHO WAS THE DRIVER OF THE MOTOR VEHICLE. 04-17-2019, UPDATED TIME OF INCIDENT AND #C
## 308
##
## 1
## 2
## 3
## 4      TION AT 9:11 AM.  THE CREW ON THE HOB46 ARRIVING AT WTC WAS INSTRUCTED TO KEEP THE DOORS CLOSE
## 5
## 6
## 7
## 8
## 9
## 10
## 11
## 12    OF WAY.  THE MATERIALS BEING CARRIED AND LOCOMOTIVE FUEL WERE NOT SPILLED.  DRUGS AND ALCOHOL W
## 13    ERE THE SIXTH, SEVENTH, AND EIGHTH CARS IN THE CONSIST.  SIXTH AND SEVENTH CARS COMPLETELY DERA
## 14    ON OF APPROXIMATELY 20 HOMES IN A HALF-MILE RADIUS IMMEDIATELY EAST OF THE DERAILMENT SITE AND
## 15
## 16                                                                                OBJECT AND DI
## 17
## 18
## 19
## 20     R REPORTS THAT HIS ATTENTION HAD SHIFTED DUE TO AN UNSTABLE PERSON ON THE PLATFORM - WHOM HE I
## 21
## 22
## 23
## 24
## 25
## 26
## 27
## 28
## 29
## 30
## 31
## 32
## 33
## 34
## 35    T BEYOND THE BUMPING BLOCK CAUSING EXCESSIVE DAMAGE TO THE DRAW HEADS, PLATFORM AREA AND CONSIS
## 36
## 37
## 38
## 39                                                                              LAIMS DEPART
## 40
## 41
## 42
## 43
## 44
```

```
## 45
## 46
## 47
## 48
## 49
## 50
## 51
## 52
## 53
## 54                                                                                          URNED. THREE CARS DERA
## 55
## 56
## 57
## 58
## 59                                                                                                       ROAD EMP
## 60
## 61
## 62
## 63
## 64
## 65
## 66
## 67
## 68
## 69
## 70
## 71
## 72                                                                                    SS AND CONSIST SPEED ARE CO
## 73                     INJURIES UPDATED 11/28/05 TO REFLECT ACCURATE TOTAL OF FATALITIES FOR TRA
## 74    EXPLORER WERE FOUND AND THE DRIVER WAS TRANSPORTED TO COOPER HOSPITAL.  HE STILL REMAINS IN T
## 75
## 76
## 77
## 78   ER STOPPED JUST PAST THE CROSSING. THE SECOND TRACTOR TRAILER WAS THEN TRAPPED ON THE CROSSING
## 79
## 80
## 81
## 82   S WERE FATALLY INJURED, THE FOURTH OCCUPANT WAS AIRLIFTED TO A HOSPITAL.  THE IMPACT CAUSED MI
## 83
## 84
## 85                                                                              , 3 WATER TANK CARS, 5 GRINDER
## 86
## 87
## 88
## 89
## 90
## 91
## 92
## 93
## 94
## 95
## 96
## 97
## 98
```

```
## 99
## 100
## 101
## 102   OP TRACK IN THE WRIGHT CITY YARD.  THEY CAME BACK OUT OF THE LOOP TRACK TO THE MAIN AND PICKED
## 103
## 104
## 105
## 106        RIES AND FATALITIES  MOW EQUIPMENT DESTROYED $95000\n\nREVISED 7 30 2008 AFTER CONFERRING
## 107
## 108
## 109
## 110
## 111
## 112
## 113
## 114
## 115                                                                CORRECTED Q32 \n10/05/07 - UPDATED Q3
## 116
## 117
## 118
## 119
## 120
## 121                                                                                                    I
## 122
## 123                                                SIDESWIPE A FREIGHT TRAIN ENGINE ON AN ADJACENT T
## 124
## 125
## 126
## 127   LED BY THE UPRR\nQUES. 47 CHANGED FROM 25 TO 24 PASSENGER FATALITIES.  PASSENGER INJURIES CHANG
## 128
## 129     AS OF JULY 2010 = 135\nNO INCIDENT NUMBER NEEDED FROM CSX\nBLOCK 36 - BREAKS DOWN AS FOLLOWS
## 130
## 131
## 132
## 133
## 134
## 135
## 136
## 137
## 138
## 139
## 140
## 141   NAL INDICATION, WITH THIRTY-FOUR (34) PASSENGERS ON BOARD. THE FRONT-END LOADER, WITH A SINGLE
## 142
## 143
## 144     WERE DESTROYED AND RELEASED 323,963 GALLONS OF ETHANOL, THIRTEEN OF THESE WERE INVOLVED IN FI
## 145
## 146
## 147
## 148
## 149
## 150
## 151
## 152
```

```
## 153   FTED TO UNIVERSITY HOSPITAL IN SAN ANTONIO, TX.  THREE EMPLOYEES INJURED.  DRIVER WAS ISSUED A
## 154
## 155
## 156
## 157
## 158
## 159
## 160
## 161
## 162
## 163
## 164
## 165   MATELY TWO SECONDS BEFORE LEAD CAR 853 STRUCK THE BUMPING BLOCK AT THE EAST END OF THE TERMINA
## 166
## 167
## 168
## 169
## 170
## 171                                                                                  CTORS 43. BRA
## 172
## 173    EVACUATION. INJURED PASSENGERS WERE TRANSPORTED TO MEDICAL FACILITIES FOR TREATMENT OF NON LI
## 174                                                    REW MEMBERS AND COMMUTER PASSENGERS.  RAIL
## 175
## 176
## 177
## 178
## 179
## 180
## 181   MATELY 680 PEOPLE EVACUATED AND THE SIZE OF THE AFFECTED AREA WAS 260 PROPERTIES WITHIN A 27 B
## 182         G AS INTENDED.  TRAIN WAS FUNCTIONING AS INTENDED.  TRAIN OPERATOR WAS UNABLE TO STOP IN
## 183
## 184
## 185
## 186
## 187
## 188   ER BEING PULLED BY THE SEMI TRUCK AS THE VEHICLE MOVED VERY SLOWLY ACROSS THE CROSSING.  TRAIN
## 189
## 190
## 191
## 192
## 193   AD OF THE LOCOMOTIVE. THE IMPACT OF THE 9 CARS KICKED INTO THE 12 CARS DERAILED TILX 316860 AN
## 194
## 195
## 196
## 197
## 198
## 199
## 200
## 201
## 202    ROAD TRACKS ON MAIN ST. A CAR TRAVELING NORTHBOUND, REAR ENDED THE PICKUP TRUCK PUSHING IT ON
## 203
## 204
## 205
## 206
```

207
208
209 OARD SERVICE EMPLOYEES AND 4 CREW EMPLOYEES WERE IN
210
211
212 IDENT AND DERAILMENT. THERE WAS A VOLUNTARY EVACUATION OF BALTIMORE COUNTY, BUT NO ONE REPOR
213
214
215 WERE 22 MINOR PASSENGER INJURIES AND 2 REPORTABLE CREW INJURIES. THERE WAS AN IMMEDIATE RESPO
216 S EQUIPMENT DAMAGE IS $1,000,000
217
218
219 RVICE TRAIN ATTE
220
221
222
223
224
225
226
227
228
229
230 ONS DEADHEADING FOR A TOTAL OF FOUR EMPLOYEES WHO WERE IN
231 ING TO AND OR HOME FROM WORK AND ONE (1) TRAIN ATTENDANT ALSO RECEIVED AN INJURY. THE NATIONAL
232
233 RE THE CHILD PASSED AWAY. THE DRIVER OF THE AUTOMOBILE AND 5 CUSTOMERS ON TRAIN 284 WERE TRANS
234 VED TO THE SOUTH ALLOWING THE STEEL SPANS AND CRANE TO FALL THROUGH THE BRIDGE. FOUR EMPLOYEE
235
236 RAL OTHER VEHICLES IN THE AREA, CAUSING INJURY TO SEVERAL OF THE VEHICLE OCCUPANTS. THE TRAIN
237
238
239
240
241 E IS $2,013,371.00. THE AGE OF THE DRIVER IS UN
242
243
244 NOT SURVIVE. MT PLEASANT CHURCH ROAD IS A DIRT-PUBLIC ROAD CROSSING WITH CROSSBUCKS ON BOTH S
245
246 ECK INJ
247
248
249
250
251
252
253 INCIDENT. LOCAL FIRE, POLICE AND EMS, ALONG WITH NJ TRANSIT POLICE, IMMEDIATELY RESPONDED. TH
254 OT DEEMED TO BE A CAUSAL FACTOR IN THIS INCIDENT. OTHER ON DUTY EMPLOYEES REPORTING INJURY WER
255
256
257
258 ENGERS WERE TRANSPORTED FOR POSSIBLE INJURIES. CROSSING WARNING SYSTEM FUNCTIONED AS INT
259
260

```
## 261
## 262   E CREEK. THE LEAD CAB CAR HAD COMPLETELY DETACHED ITSELF FROM THE REST OF THE CONSIST. THE A EI
## 263
## 264
## 265   BOARD SERVICE EMPLOYEES. THIS WAS THE INAUGURAL RUN FOR THIS ROUTE. SCR REPORTS $425,000 IN DAI
## 266   AILED TO STOP SHORT (NEXT SIGNAL) OF A STOP SIGNAL AT BRIDGE 14. TRAIN TRAVELED OVER DERAIL PAS
## 267
## 268   TROLEUM GAS; ITDX 5082 RELEASED 13,229 GALLONS OF MOLTEN SULFUR; UTLX 643949 RELEASED 14,092 GA
## 269
## 270
## 271
## 272
## 273
## 274
## 275
## 276
## 277
## 278
## 279 â\200\231 SECTION BETWEEN UP AND RTDC TRACKS. THE DRIVER OF THE CAR REMAINED STATIONARY THEN SLOU
## 280
## 281                                                                    AKS EQUIPMENT DAMAGE IS $11,47
## 282                                                                             ED CONSIST SPEED IS
## 283
## 284
## 285
## 286
## 287   S SIDE AND FIVE CARS DERAILED. THE TWO AMTRAK CREW MEMBERS IN THE LOCOMOTIVE WERE FATALLY INJUI
## 288
## 289   DING END OF BAG CAR CLIMBED RAIL DUE TO SNOW AND ICE OBSTRUCTION AND STARTED DOWN MAIN TRACK IN
## 290
## 291
## 292
## 293
## 294
## 295
## 296
## 297
## 298
## 299
## 300
## 301   . STRUCTURAL DAMAGE FROM COLLOISION TO SIDE OF DMU BODY. THE MOTORCLE OPERATOR DIED AS A RESULT
## 302   FF-DUTY EMPLOYEE COMMUTING TO/FROM WORK. THE INJURED EMPLOYEES WERE NOT THE TRAIN CREW.  THERE
## 303
## 304
## 305
## 306   DROGEN PEROXIDE, CAR GATX31792 RELEASED 1 GALLON SODIUM BISULPHITE AND CAR OLNX114043 RELEASED
## 307                                                                                    ARS DERA
## 308
##                                                                                                    I
## 1
## 2
## 3
## 4     OPERATE THROUGH THE WTC WITHOUT STOPPING.  THESE PASSENGERS WERE RE-ROUTED TO 33RD STREET.  AT
## 5
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7
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9
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11
12 OT A FACTOR IN THIS ACCIDENT. THE LOCOMOTIVE RECEIVED EXTENSIVE DAMAGE TO THE FRONT - ALL SAFE
13 EIGHTH CAR HAD ONLY THE FRONT TRUCK DERAILED. PASSENGERS WERE REMOVED FROM THE SITE BY BUS A
14 NS IN EFFECT AS OF 2/27/02. ONE FATALITY TO A MINOT, ND RESIDENT RESULTED DURING VOLUNTARY EVA
15
16
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18
19
20 MIGHT JUMP IN FRONT OF THE T
21
22
23
24
25
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27
28
29
30
31
32
33
34
35 HE OPERATING CAR (808) NUMBER ONE TRUCK WAS RAISED 10 INCHES IN THE AIR, AND WAS BEING HELD UP
36
37
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## 72
## 73
## 74                                                                                                    PITAL AS OF 5/2
## 75
## 76
## 77
## 78                                                                                                  AS STRUCK BY THE T
## 79
## 80
## 81
## 82       MAGE TO THE LEAD LOCOMOTIVE BUT DESTROYED THE FLASHERS AND MAINTAINER''S SHANTY AT THE CROS
## 83
## 84
## 85
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## 101
## 102  E REST OF THEIR TRAIN, 21 LOADS OF MIXED FREIGHT.  THERE WERE TWO HAZMAT CARS ON THE END OF THE
## 103
## 104
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## 114
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## 124
## 125
## 126
## 127  OM 55 TO 54.\n\nUPDATED 12/15/08 TO INCLUDE ONE ADDITIONAL CLASS "C" INJURY.\nQUES. 28 CHANGED
## 128
## 129  OF COACH REPAIRS = 351,796 - ESTIMATED COST OF REPAIRS TO LOCOMOTIVE 500,000, ESTIMATED COST TO
## 130
## 131
## 132
## 133
## 134
## 135
## 136
## 137
## 138
## 139
## 140
## 141 ON) OCCUPANT, WAS STRUCK BY THE (A) END OF CAR 3510 ON THE DRIVER''S RIGHT CORNER OF THE RAISED
## 142
## 143
## 144  FLAME.  AN EVACUATION OF APPROXIMATELY 2,000 PEOPLE FOR 20 HOURS TOOK PLACE DUE TO THE HAZARDOUS
## 145
## 146
## 147
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## 160
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## 162
## 163
## 164
## 165  E LEAD CAR MOVED PAST THE 7 CAR MARKER, AND STRUCK THE BUMPING BLOCK.  THE FORCE OF THE IMPACT S
## 166
## 167
```

168
169
170
171
172
173 EATENING INJU
174
175
176
177
178
179
180
181 REA AND THE LENGTH OF THE EVACUATION WAS 7 D
182
183
184
185
186
187
188 K THE REAR OF THE TRAILER THAT WAS BEING PULLED BY THE SEMI TRUCK. THE COLLISION RESULTED IN CA
189
190
191
192
193 319655 (LOAD STANDING IN THE TRACK). TILX 319655 SUSTAINED A PUNCTURE TO THE TANK AND THERE WAS
194
195
196
197
198
199
200
201
202 TRACKS AT THE CROSSING. KNOCKING DOWN A HIGHWAY CROSSING FIXTURE. WHICH LANDED ON TO TOP OF TH
203
204
205
206
207
208
209
210
211
212 THE OUTREACH CENTER THAT WAS SET UP FOR ANY BUSINESSES OR RESIDENTS THAT WANTED TO EVACU
213
214
215 LLOWED BY AN INVESTIGATION AND REPORTING TO THE NRC FOLLOWING THE INCIDENT. ALL PASSENGERS AND
216
217
218
219
220
221

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## 222
## 223
## 224
## 225
## 226
## 227
## 228
## 229
## 230
## 231  PORTATION SAFETY BOARD DETERMINED THAT THE PROBABLE CAUSE OF THE ACCIDENT WAS THE ENGINEERS ACC
## 232
## 233                                                    TO THE HOSPITAL WITH NON LIFE THREATENING INJU
## 234  AINED INJURIES WHEN THE CRAN FELL.  THE RESPONSES IN BOX #40 AND #46 ARE CORRECT.  THERE WAS ON
## 235
## 236  ED ROUGHLY 812 FT FROM THE CROSSING AND CALLED DISPATCH FOR A 911 EMERGENCY CALL.  NO DERAILMEN
## 237
## 238
## 239
## 240
## 241
## 242
## 243
## 244  ALL THREE EMPLOYEES WERE TRANSPORTED VIA AMBULANCE TO CRISP REGIONAL MEDICAL CENTER.  ALL THREE
## 245
## 246
## 247
## 248
## 249
## 250
## 251
## 252
## 253  RE 2 REPORTED INJURIES TO THE OCCUPANTS OF THE AUTOMOBILE, AND 3 REPORTED INJURIES FROM THE PAS
## 254                                                                RT OF THE ENGINEERING WORK CREW OR
## 255
## 256
## 257
## 258
## 259
## 260
## 261
## 262  CKS OF CAR #4 DERAILED AS WELL BUT STAYED IN THE UPRIGHT POSITION. A TOTAL OF 214 PASSENGERS WE
## 263
## 264
## 265
## 266                                        NAL RESULTING IN TRAIN DERAILING THE LEAD LOCO AND THREE
## 267
## 268                                      OF ELEVATED TEMPERATURE LIQUID N.O.S.;  PERSONS EVACUATED -
## 269
## 270
## 271
## 272
## 273
## 274
## 275
```

276
277
278
279 RWARD, STOPPED, AND THEN PULLED DIRECTLY IN FRONT OF AN RTDC NORTHBOUND TRAIN. THE TRAIN COLLIDE
280
281
282
283
284
285
286
287 SX CONFIRMED THEY WILL BE IDENTIFYING THEIR EMPLOYEE(S), AND PROVIDING THEIR EMPLOYEE(S) FRA FOR
288
289 OF THE INTENDED ROUTE, STATION TRACK
290
291
292
293
294
295
296
297
298
299
300
301 HE COLLI
302 BE ANY NUMBER OF ON-DUTY EMPLOYEES THAT ARE USING THE TRAIN FOR COMMUTATION. THE GUIDE STATES
303
304
305
306 ND OF CHLOR
307
308
##
1
2
3
4 AM THE PATH EMERGENCY OPERATIONS PLAN WAS PUT INTO EFFECT AND REMAINING SERVICE OPERATED ON A
5
6
7
8
9
10
11
12 PLIANCES - CONDUCTOR SIDE STEPS - HAND RAILS - TRACK DAMAGE REPLACED TWO PIECES RAIL - TIES -
13 KEN TO LAUREL, INDIANA ELEMENTARY SCHOOL BEFORE BEING RELEASED. TEN PASSENGERS WERE TAKEN TO
14 ON. APPROXIMATELY 1,000-2,000 PEOPLE WERE SEEN AND EVALUATED AT HOSPITALS AND CLINICS WITH SO
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## 34
## 35     E PLATFORM.  THE ENGINEER STATES THAT HE WAS PROCEEDING AT A SUFFICIENTLY LOW SPEED.  HE APPL
## 36
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## 101
## 102    N.  THE WDL WAS OPERATING UNDER YARD LIMIT RULE AS THE APPROACHED HIGHWAY 98 CROSSING.  THEY
## 103
## 104
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## 124
## 125
## 126
## 127     PER FRA REQUEST.\nQUES. 35B CHANGED TO "2" PER FRA REQUEST.\nUPDATED 3/11/09 TO INCLUDE ONE
## 128
```

```
                                                                                                                  IR 192 SEAT FRAMES =


 T. THE FRONT END LOADER WAS OPERATED BY A SNOW REMOVAL CONTRACTOR IN A PUBLICLY ACCESSIBLE RO


EASE AND FIRE.  THE DERAILMENT AND ENSUING FIRE CAUSED 1 DEATH AND INJURIES TO 11 INDIVIDUALS









 ELY DAMAGED THE BUMPING BLOCK, AND THE SURROUNDING CONCRETE ON THE PLATFORM AT THE NORTH END
```

TIES TO CITIZENS THAT WERE RIDING ON THE TRAILER PORTION OF TH

OSS OF 29,245 GALLONS OF ACRYLONITRILE. FOUR TAMINCO EMPLOYEES WERE TREATED FOR EXPOSURE TO AC

THERE WERE 50 CUSTOMERS ON BOARD, WITH 1 REPORTED INJURY. THE VEHICLE OPERATOR REPORTED NO

WERE TRANSPORTED BACK SAFELY TO SKAGWAY WHERE 19 PASSENGERS WERE TREATED AT THE LOCAL CLINIC

TION TO 106 MILES PER HOUR AS HE ENTERED A CURVE WITH A 50 MILE PER HOUR SPEED RESTRICTION, DU

RATOR ON THE CRANE AND A TOTAL OF FOUR RAILROAD EMPLOYEES THAT WERE INJURED. THE OTHER EMPLOY

237
238
239
240
241
242
243
244 OYEES WERE GIVEN PRESCRIPTION AND PRESCRIBED TI
245
246
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251
252
253 RS ONBOARD THE LRV, ALL OF WHICH WERE TRANSPORTED TO LOCAL HOSPITALS. THE LRV WAS RELEASED AT
254
255
256
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260
261
262 ACUATED FROM THE TRAIN. OUT OF THE 214 PASSENGERS EVACUATED, 9 REPORTED INJURIES AND 0 FATALIT
263
264
265
266
267
268
269
270
271
272
273
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275
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277
278
279 TH THE CAR RESULTING IN THE DEATH OF THE DRIVER. CORONER’’S REPORT CONFIRMED SUICIDE. ONE PASS
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281
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283
284
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287 F 6
288
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## 291
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## 293
## 294
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## 297
## 298
## 299
## 300
## 301
## 302 DEADHEADING EMPLOYEES SHOULD BE SHOWN AS ON-DUTY BUT THEYâ\200\231RE NOT PART OF THE â\200œNUMBE
## 303
## 304
## 305
## 306
## 307
## 308
##                                                                                                  N
## 1
## 2
## 3
## 4   UTE SCHEDULE. AT 10:45 AM PASSENGER TRAIN OPERATIONS WERE SUSPENDED AS A RESULT OF CONCERNS FOR
## 5
## 6
## 7
## 8
## 9
## 10
## 11
## 12                                                                                               TR
## 13  E MEMORIAL HOSPITAL IN CONNERSVILLE.  NINE WERE TREATED AND RELEASED.  ONE WAS KEPT OVERNIGHT FO
## 14   NG TREATED AND/OR ADMITTED INTO THE HOSPITAL.   EMERGENCY RESPONSE DISPATCHED, COMPANY PERSONNE
## 15
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## 34
## 35   POINTS OF POWER BRIEFLY AFTER PASSING SIGNAL 98Z.  HE ALLEGED THAT HE APPLIED THE BRAKES BUT IT
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## 90
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## 97
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## 99
## 100
## 101
## 102 RACK WARRANT, WARRANT NUMBER SEVEN (7), PROCEED FROM MILE POST 23 TO VALLIANT.  ON THE WARRANT NU
## 103
## 104
## 105
## 106
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## 123
## 124
## 125
## 126
## 127 NAL "C" CLASS, NON-FATAL INJURY.\nUPDATED 3/16/09 TO INCLUDE 2 "C" CLASS, NON-FATAL INJURIES.\nU
## 128
## 129
## 130
## 131
## 132
## 133
## 134
## 135
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## 137
## 138
## 139
## 140
## 141 THE FRONT END LOADER SLIPPED ON ICE AND TRAVERSED THE ROADWAY CURB RESULTING IN ITS FOULING THE
## 142
## 143
```

144 AREA AT THE TIME OF THE INCIDENT OR RESPONDING TO THE DERAILMENT. FRA POST ACCIDENT DRUG AND A
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162
163
164
165 BUMPING BLOCK. IN ADDITION, SEVERAL TURNSTILES WERE DAMAGED. BOTH THE NORTH AND SOUTH RAILS AT
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193   TR
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## 198
## 199
## 200
## 201
## 202 .  THERE WAS MINOR DAMAGE TO THE CAR BODY, IN ADDITION TO THE WINDSHIELD BEING BROKEN WHEN THE H
## 203
## 204
## 205
## 206
## 207
## 208
## 209
## 210
## 211
## 212
## 213
## 214
## 215 WERE RELEASED TO THEIR CRUISE SHIPS.  TWO PASSENGERS REPORTED MINOR INJURIES AT A LATER DATE AND
## 216
## 217
## 218
## 219
## 220
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## 225
## 226
## 227
## 228
## 229
## 230
## 231 IS LOSS OF SITUATIONAL AWARENESS LIKELY BECAUSE HIS ATTENTION WAS DIVERTED TO AN EMERGENCY SITUA
## 232
## 233
## 234               VOLVED WERE NOT ON THE CRANE AT THE TIME OF THE INCIDENT BUT ON THE BRIDGE AND GROU
## 235
## 236
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## 252
## 253   IMATELY 12:35 PM, AND THE TRAIN WAS RETURNED TO THE CLRC FOR INSPECTION, INVESTIGATION AND REPA
## 254
## 255
## 256
## 257
## 258
## 259
## 260
## 261
## 262                                                                    \nCOORRECTION TO ITEMS 14,22,27,3
## 263
## 264
## 265
## 266
## 267
## 268
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## 270
## 271
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## 273
## 274
## 275
## 276
## 277
## 278
## 279                                                                S ACTUALLY A CONTRACT TRANSIT POLICE OFFIC
## 280
## 281
## 282
## 283
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## 302                                                                                                    S
## 303
## 304
## 305
```

```
## 306
## 307
## 308
##                                                                                                    N
## 1
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## 3
## 4   IC SAFETY.  BOTH TOWERS FELL CAUSING DEBRIS TO FALL INTO THE STATION AND ON A TRAIN LOCATED ON T
## 5
## 6
## 7
## 8
## 9
## 10
## 11
## 12
## 13  SERVATION AND RELEASED THE NEXT DAY.  NONE OF THE TRAIN CREW WERE INJURED.  DERAILMENT SITE WAS
## 14   WELL AS NTSB AND FRA PERSONNEL AT SITE.  STATIONARY COMMAND CENTER SET UP AT LOCAL FIRE STATION
## 15
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## 20
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## 31
## 32
## 33
## 34
## 35   NO EFFECT.  HE ALLEGED THAT HE CONTINUED TO APPLY THE SERVICE BRAKE UNTIL EVENTUALLY PLACING TH
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## 37
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## 102 R 7 UNDER "OTHER SPECIFIC INSTRUCTIONS: THEY WERE INSTRUCTED TO FLAG NEW 98 CROSSING AT WRIGHT C
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## 126
## 127 ED 11/10/09. NUMBER OF NON-FATAL PASSENGER INJURIES DECREASED FROM 58-TO-57. DURING MECICAL RECO
## 128
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## 140
## 141  THE TRAIN OPERATION APPLIED AN EMERGENCY BRAKING AND STRUCK THE FRONT END OF LOADER AT A SPEED (
## 142
## 143
## 144 OL TESTING WAS DONE ON THE CREW AND ALL RESULTS WERE NEGATIVE.  #11 ACTUAL NUMBER IS 2000 PEOPLE
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## 164
## 165  ED TO THE BUMPING BLOCK BROKE AWAY AT THE INSULATED JOINTS, AND WERE PUSHED 5 FEET EAST.  THE NO
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## 201
## 202 AY CROSSING FIXTURE STRUCK THE WINDSHIELD.  THE DRIVER OF BOTH AUTO VEHICLE WERE TAKEN TO THE HOS
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## 213
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## 215                                                                                     ACCOUNTED
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## 230
## 231                              WITH ANOTHER TRAIN. AMTRAKS EQUIPMENT DAMAGE IS  $27,140,000
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##                                                                                                    NA
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## 3
## 4    3 AT WORLD TRADE CENTER.  CARS IN CONSIST WERE: 612-139-750-731-160-143-745.  FLOODING OCCURRED
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12
13 ECTED BY FRA TRACK INSPECTOR THE NEXT MORNING. CAUSE WAS DETERMINED TO BE A RAIL WHICH BROKE U
14 A MOBILE COMMAND CENTER NEAREST DERAILMENT SITE HAS BEEN SET UP. FIRE DEPARTMENT RESPONDED AND
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35 AKE VALVE INTO THE EMERGENCY POSITION. CAR WAS THEN TOO CLOSE TO THE BUMPING BLOCK. SEVERAL PA
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## 102    AFTER COUPLING INTO THEIR TRAIN THEY WERE APPROXIMATELY 1/2 MILE FROM 98 CROSSING.  THE CONDU
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## 126
## 127 HECK IT WAS DISCOVERED THAT ONE INDIVIDUAL HAD BEEN LISTED TWICE. HARD COPIES OF ALL INJURIES AN
## 128
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## 140
## 141   MPH. THERE WERE NO (0) INJURIES REPORTED BY THE LRV OPERATOR, THE FRONT END LOADER OPERATOR OR
## 142
## 143
## 144 CUATED.  THE CARS THAT WERE DESTROYED AND RELEASED HAZMAT WERE:  CTCX 731600, CTCX 731601, CTCX
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## 164
## 165 AXLE OF LEAD CAR 853 REMAINED ON THE RAILS, AND THE NO. 2 AXLE DERAILED FOUR INCHES TO THE SOUTH
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## 202                                                                AL AS PRECAUTIONARY FOR EVALUATI
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##                                                                                                              NA
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## 4    WATER FLOWED AS FAR AS EXCHANGE PLACE STATION IN JERSEY CITY.  MAINTENANCE PERSONNEL WORKED ROU
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## 12
## 13  MOVING TRAIN.  RAIL BREAK WOULD BE DESCRIBED AS AN ORDINARY BREAK.  ANY PRIOR INSPECTION OF RAIL
## 14  D DOWN HAZMAT CARS.  SPAN OF DERAILMENT SITE TOTALED 475 FEET.  SINGLE MAIN CWR TRACK, CLASS 3,
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## 34
## 35  GERS IN CAR 808 WERE INJURED INCLUDING A PASSENGER ON THE PLATFORM.  CAR EQUIPMENT DIVISION GAVE
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## 102 STATED THAT THEY HAD A JOB BRIEFING AS THE LOCOMOTIVE BEGAN TO FLAG THE CROSSING\nTHE BRAKEMAN NO
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## 127                                                                                                TALITIES ON FI
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## 135
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## 140
## 141 34 PASSENGERS ONBOARD THE TRAIN. THE LRV SUSTAINED DAMAGE TO THE BODY FRAME/STRUCTURE, WINDSHIELD
## 142
## 143
## 144  96, CTCX 731599, CTCX 730958, CITX 224236, TILX 193772, TILX 193767, NATX 303375, NATX 303504, N
## 145
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## 164
## 165 AR 853 SUSTAINED DAMAGE TO THE NO. 1 END ANTI-CLIMBER, FIBERGLASS BONNET, PANTOGRAPH GATES, DRAFT
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NA
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4 HE CLOCK TO PUMP TUNNELS E AND F AND BUILD INTERIM WATER BARRIERS TO PREVENT POTENTIALLY CATASTR
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12
13 LD NOT HAVE NOTICED ANY VISUAL DEFECT. TRAIN WAS MOVING AT APPROXIMATELY 12 M
14 PH. HULCHER RERAILED CARS. SERVICE RESUMED AT APPROXIMATELY 0600 CST ON 1/23/02. CONDUCTOR RE
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34
35 EQUIPMENT, ONCE RE-RAILED A STANDING BRAKE TEST. THE EMERGENCY BRAKE AND PILOT VALVE DEAD MAN
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## 102 LLY RIDES THE TRAILING LOCOMOTIVE BUT WAS ON THE HEAD END TO FLAG THE CROSSING.  THE CONDUCTOR S
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## 140
## 141 HEELS, PLOW AND TRUCK ASSEMBLY. THE FRONT END LOADER SUSTAINED MINOR DAMAGE TO THE CORNER OF THE
## 142
## 143
## 144                                          302974, NATX 302968, NATX 303067, NATX 303174, NATX 302
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## 164
## 165 AR, INCLUDING THE COUPLER ASSEMBLY, AND ELECTRIC PORTION.  THE OTHER SIX CARS SUSTAINED DAMAGE TO
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##                                                                                                   NA
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## 3
## 4   C WATER INTRUSION INTO THE REMAINDER OF THE PATH SYSTEM.  SIXTEEN PATH STAFF INCURRED STRESS/ PH
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## 13
## 14  ED BEING INJURED DUE TO CHEMICAL EXPOSURE.  NO INJURIES SUSTAINED BY ANY CONTRACTOR PERSONNEL DU
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## 34
## 35  URE WERE ALSO TESTED.  ALL OPERATED AS DESIGNED.  TOTAL DAMAGE TO BOTH EQUIPMENT AND TRACK STRUC
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## 101
## 102 ED DOING HIS PAPER WORK AND DID NOT LOOK UP UNTIL THE TRAIN WENT INTO EMERGENCY. THE CROSSING WAS
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## 140
## 141 KET (SCRATCHES). DAMAGE ESTIMATES ARE $150,000. THIS INCIDENT WAS REPORTED TO THE NRC-REPORT #92
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## 165 AFT GEAR SHEAR BOLTS, AND ANTI CLIMBERS.  \n\nDAMAGES ASSOCIATED WITH THIS INCIDENT ARE:  WAY & S
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4 AL INJURIES RESULTING FROM THEIR EVACUATION FROM THE NORTH TOWER AND WTC COMPLEX. AS A RESULT O
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13
14 THE CLEAN-UP PROCESS. NTSB PERSONNEL ON SITE AND INVESTIGATING CAUSE. CAUSE UNDER INVESTIGAT
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## 34
## 35   WERE APPROXIMATELY $127,742.  THE CREW WERE SENT FOR ‘TOX BOX‘ TESTING AT CHRIST HOSPITAL.  ALL
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## 102  T FLAGGED. THE TRAIN WENT INTO EMERGENCY 75 FT FROM THE EAST END OF THE CROSSING SURFACE.  THE
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## 165 CTURES- $276,000.00; CAR EQUIPMENT $76,617.78.  AS A RESULT OF THE COLLISION, 32 PASSENGERS, AND
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4 IS INCIDENT THE PRELIMINARY DAMAGE ESTIMATE TO REPLACE 7 CARS, REBUILD THE WTC TERMINAL STATION,
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14 FRA FORMS 6180.55A TO BE PROVIDED AS INFORMATION IS RECEIVED. 7/19/06 Ã»UPDATED CAUSE TO T215-
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## 35   ULTS WERE NEGATIVE.\nFINAL DETERMINATION WAS AS FOLLOWS:  THE ESTIMATED SPEED OF THE CONSIST AT
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## 102 LOCOMOTIVE HAD FULLY OCCUPIED THE CROSSING WHEN A LOADED LOG TRUCK COLLIDED. #39 M503 A VANDAL S
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## 165                                                    H THE ENGINEER AND CONDUCTOR SUSTAINED INJUR
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##                                                                                                   NAI
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## 4    AND RESTORE TUNNELS E AND F IS IN EXCESS OF $1 BILLION DOLLARS.  THIS DOES NOT INCLUDE COSTS TO
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## 14  NT BAR BROKEN (NON-INSULATED).  THE TOTAL NUMBER OF OTHERS NONFATAL IS ACTUALLY 1440.   ALL ELEVI
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## 35    TIME OF IMPACT WAS CALCULATED TO BE 6 MPH, WHICH WAS BELOW THE SPEED LIMIT FOR ENTERING A STATI
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## 102  ALL OF THE WIRING FROM THE HIGHWAY GRADE CROSSING SYSTEM - IMPOSSIBLE FOR THE SIGNAL SYSTEM TO W
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##     RCL Latitude   Longitud SIGNAL MOPERA ADJUNCT1 ADJUNCT2 ADJUNCT3
## 1    NA       NA         NA     NA     NA     <NA>     <NA>     <NA>
## 2    NA       NA         NA     NA     NA     <NA>     <NA>     <NA>
## 3    NA       NA         NA     NA     NA     <NA>     <NA>     <NA>
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## 8    NA       NA         NA     NA     NA     <NA>     <NA>     <NA>
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## 9    NA       NA         NA     NA     NA     <NA>     <NA>     <NA>
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## 12   NA       NA         NA     NA     NA     <NA>     <NA>     <NA>
## 13   NA  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
## 14   NA       NA         NA     NA     NA     <NA>     <NA>     <NA>
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## 63    0  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
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## 130   0 37.95710 -121.27880     NA     NA     <NA>     <NA>     <NA>
## 131   0  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
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## 155   0  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
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## 158   0  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
## 159   0  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
## 160   0  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
## 161   0  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
## 162   0  0.00000    0.00000     NA     NA     <NA>     <NA>     <NA>
## 163   0 41.87947  -87.63953      1      1        Z        L
## 164   0 43.29391  -70.74341      1      1
## 165   0  0.00000    0.00000     NA     NA
## 166   0 37.57509 -120.84708      1      1
## 167   0 37.93996 -121.60975      1      1
## 168   0  0.00000    0.00000     NA     NA
## 169   0  0.00000    0.00000     NA     NA
## 170   0 41.50092  -87.94719      1      1        Q
```

```
## 171   0 40.03521 -101.62205      1      1
## 172   0 32.08614  -93.47476      1      2        P
## 173   0 26.18806  -80.15320      1      1        D
## 174   0  0.00000    0.00000     NA     NA
## 175   0 39.89561 -118.75262      1      1
## 176   0  0.00000    0.00000     NA     NA
## 177   0 47.38174 -122.23296      1      1
## 178   0 42.24350  -84.26930      1      1
## 179   0 32.85513  -90.40565      1      1
## 180   0 34.46447 -118.54866      1      1
## 181   0 39.83458  -75.23670      2      2        P
## 182   0 38.52870 -121.48029      1      2        D
## 183   0 33.01910 -117.28140      1      1        C        Q
## 184   0 41.82977  -86.25418      2      5
## 185   0 28.46140  -81.36730      1      1
## 186   0 41.86106  -87.61895      2      5
## 187   0 32.22059  -90.21936      1      1
## 188   0 31.98561 -102.09356      1      1        Q
## 189   0 30.42788  -97.70260      1      1        Q
## 190   0 39.94502  -75.14854      1      2
## 191   0 35.89130 -119.40563      1      1
## 192   0 32.73149  -97.17300      1      1
## 193   0 30.24874  -91.09260      2      5        K
## 194   0 36.21133 -119.63957      1      1        Q
## 195   0 35.99551  -79.93134      1      1
## 196   0 32.74127 -117.18379      1      1
## 197   0 32.70131  -97.34146      1      1
## 198   0 38.61660  -79.86957      2      2
## 199   0 41.10780  -73.18675      1      1        A        B        C
## 200   0 30.06092  -94.24064      1      1        Q
## 201   0 40.88634  -74.24289      1      1        A        L        Q
## 202   0 40.03200  -74.97142      1      1        D        C
## 203   0 40.86480  -74.10366      1      1        A        L        Q
## 204   0 34.24839 -118.40300      1      1
## 205   0 35.60885  -90.90549      1      1        Q
## 206   0 46.27580  -94.71012      1      1        Q
## 207   0 33.45005  -84.70033      1      1        D
## 208   0 40.99197  -92.16854      1      2        P
## 209   0 33.13791  -90.25365      1      1
## 210   0 40.87960  -73.92283      1      1        A        B        C
## 211   0 37.20475  -89.63310      1      1        Q
## 212   0 39.30303  -76.53545      1      1        D
## 213   0 34.94642  -82.04160      1      1
## 214   0 29.55329  -96.20852      1      1        Q
## 215   0 59.45800 -135.31300      2      2        P
## 216   0 41.57920  -72.77810      1      1        A        D
## 217   0 26.43940  -80.09082      1      1        Q
## 218   0 37.38552 -120.61351      1      1        Q
## 219   0 30.64194  -90.50281      1      1
## 220   0 40.78028  -86.87449      1      1
## 221   0 29.49654  -98.40128      1      1
## 222   0 38.96172  -89.09923      1      1
## 223   0 41.98860  -87.93880      1      1        Q
## 224   0 36.92327 -119.97376      1      1
```

```
## 225   0 41.99612  -71.24582      1      1        B        C        D
## 226   0 29.66572  -97.50522      1      1
## 227   0 36.54628  -77.53008      1      1
## 228   0 44.11284  -72.67623      2      2        P
## 229   0 33.41396  -86.93973      1      1        Q
## 230   0 33.45677  -97.15473      1      1        Q
## 231   0 39.95711  -75.18492      1      1        A        B        D
## 232   0 41.08628  -73.78803      1      1        A        B        C
## 233   0 40.03382  -74.96880      1      1        D
## 234   0 30.85954  -88.42313      2      2        P
## 235   0 30.73983  -90.50894      1      1
## 236   0 33.99841 -117.87092      1      1        Q
## 237   0 34.20783 -119.12983      1      1        Q
## 238   0 35.87075  -83.96094      1      1
## 239   0 41.32687  -88.14069      1      1
## 240   0 34.37097  -80.42706      1      1        Q
## 241   0 36.33077  -77.59413      1      1
## 242   0 48.27319 -100.82101      1      1
## 243   0 33.76793  -90.24225      1      1
## 244   0 32.05627  -83.80406      1      1        D
## 245   0 36.51827 -119.72325      1      1        Q
## 246   0 28.60412  -81.35287      1      1        D        Q
## 247   0 45.23280 -122.75592      1      1        Q
## 248   0 32.44931  -90.12147      1      1        Q
## 249   0 30.82380  -88.06734      1      2        P
## 250   0 37.80848 -100.38127      1      2        D        P
## 251   0 33.91824  -90.28612      1      1
## 252   0 33.27849  -90.22215      1      1
## 253   0 40.00965  -75.01189      1      1        D        G        L
## 254   0 39.83232  -75.39609      1      1        A        B
## 255   0 36.88763 -119.94226      1      1        Q
## 256   0 37.21670 -104.46455      1      2        D        P
## 257   0 27.99776  -82.20438      1      1        D        Q
## 258   0 26.60891  -80.06936      1      1
## 259   0 32.80562  -96.82977      1      1        Q
## 260   0 40.73707  -88.00149      1      1        Q
## 261   0 37.86291 -122.29950      1      1
## 262   0 37.59641 -121.92009      1      1        Q
## 263   0 40.73504  -74.02801      1      1        A        G        L
## 264   0 41.48052  -88.09008      1      1
## 265   0 47.08242 -122.67515      1      1        Q
## 266   0 47.18499 -122.58561      1      1        Q
## 267   0 34.57501  -80.04596      1      1        Q
## 268   0 39.82633  -78.72203      1      1        Q        J
## 269   0 40.98912  -73.67444      1      1        A        B        Q
## 270   0 35.69595 -119.33079      1      1        Q
## 271   0 28.05417  -81.81760      1      1        Q
## 272   0 28.25890  -81.48602      1      1        Q
## 273   0 41.86878  -87.63754      1      1        G        Q
## 274   0 35.33294  -83.59127      2      2
## 275   0 29.67955  -95.36737      1      1
## 276   0 40.75174  -73.99682      1      1        G        L
## 277   0 40.75173  -73.99688      1      1        A        G        L
## 278   0 40.68459  -73.97752      1      1        A
```

```
## 279   0 39.75968 -104.81013      1      1        B        J
## 280   0 30.39912  -88.88566      1      1
## 281   0 27.43775  -81.24027      1      1        Q
## 282   0 38.07733  -78.71674      1      1        Q
## 283   0 30.81752  -90.51032      1      1        Q
## 284   0 29.62383  -95.52625      1      1        Q
## 285   0 32.81083  -97.09045      1      1        Q
## 286   0 32.50734  -94.54023      1      1        Q
## 287   0 33.91128  -81.06532      2      5        L
## 288   0 42.62567  -84.75087      1      1        Q
## 289   0 32.07618  -81.08837      1      1        Q
## 290   0 33.62185  -84.49946      1      1
## 291   0 41.35281  -89.61052      1      1        J        Q
## 292   0 40.10799  -76.47410      1      1        A        D        J
## 293   0 40.54086  -74.36048      1      1        A        G        L
## 294   0 40.88669  -74.10232      1      1        A        L        Q
## 295   0 29.74555  -81.64209      1      1        Q
## 296   0 31.58988 -106.22636      1      1        J        Q
## 297   0 30.05921  -94.99263      1      1        Q
## 298   0 32.07573  -90.31125      1      1        Q
## 299   0 41.80085  -86.61043      1      1        J
## 300   0 37.95864 -122.35970      1      1        J
## 301   0 38.45601 -122.73722      1      2        J        A        B
## 302   0 41.57482  -73.59443      1      1        A        B        G
## 303   0 41.61547  -87.39401      1      1        Q
## 304   0 39.76224 -104.81931      1      1        Q        B        J
## 305   0 32.71860  -90.43827      1      1
## 306   0 32.90099  -82.49389      2      2        J
## 307   0 40.75456  -73.58125      1      1        A
## 308   0 41.45633  -87.72476      1      1        Q
##                  SUBDIV                                        Cause MultiRR
## 1                  <NA>             (T) Rack, Roadbed and Structures   FALSE
## 2                  <NA>           (H) Train operation - Human Factors    TRUE
## 3                  <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 4                  <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 5                  <NA>           (H) Train operation - Human Factors    TRUE
## 6                  <NA>           (H) Train operation - Human Factors    TRUE
## 7                  <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 8                  <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 9                  <NA>             (T) Rack, Roadbed and Structures   FALSE
## 10                 <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 11                 <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 12                 <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 13                 <NA>             (T) Rack, Roadbed and Structures   FALSE
## 14                 <NA>             (T) Rack, Roadbed and Structures   FALSE
## 15                 <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 16                 <NA>           (H) Train operation - Human Factors   FALSE
## 17                 <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 18                 <NA>             (T) Rack, Roadbed and Structures   FALSE
## 19                 <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 20                 <NA>           (H) Train operation - Human Factors   FALSE
## 21                 <NA>           (H) Train operation - Human Factors    TRUE
## 22                 <NA>           (H) Train operation - Human Factors   FALSE
## 23                 <NA>           (H) Train operation - Human Factors    TRUE
```

```
## 24              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 25              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 26              <NA>           (H) Train operation - Human Factors    TRUE
## 27              <NA>              (T) Rack, Roadbed and Structures   FALSE
## 28              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 29              <NA>              (T) Rack, Roadbed and Structures   FALSE
## 30              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 31              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 32              <NA>           (H) Train operation - Human Factors    TRUE
## 33              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 34              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 35              <NA>           (H) Train operation - Human Factors   FALSE
## 36              <NA>        (E) Mechanical and Electrical Failures   FALSE
## 37              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 38              <NA>           (H) Train operation - Human Factors   FALSE
## 39              <NA>           (H) Train operation - Human Factors   FALSE
## 40              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 41              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 42              <NA>           (H) Train operation - Human Factors   FALSE
## 43              <NA>              (T) Rack, Roadbed and Structures   FALSE
## 44              <NA>           (H) Train operation - Human Factors   FALSE
## 45              <NA>              (T) Rack, Roadbed and Structures   FALSE
## 46              <NA>           (H) Train operation - Human Factors    TRUE
## 47              <NA>           (H) Train operation - Human Factors   FALSE
## 48              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 49              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 50              <NA>           (H) Train operation - Human Factors    TRUE
## 51              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 52              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 53              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 54              <NA>           (H) Train operation - Human Factors   FALSE
## 55              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 56              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 57              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 58              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 59              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 60              <NA>              (T) Rack, Roadbed and Structures   FALSE
## 61              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 62              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 63              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 64              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 65              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 66              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 67              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 68              <NA>           (H) Train operation - Human Factors   FALSE
## 69              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 70              <NA>           (H) Train operation - Human Factors   FALSE
## 71              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 72              <NA>           (H) Train operation - Human Factors   FALSE
## 73              <NA> (M) Miscellaneous Causes Not Otherwise Listed    TRUE
## 74              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 75              <NA>           (H) Train operation - Human Factors   FALSE
## 76              <NA>           (H) Train operation - Human Factors   FALSE
## 77              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
```

```
## 78                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 79                <NA>              (T) Rack, Roadbed and Structures   FALSE
## 80                <NA>              (T) Rack, Roadbed and Structures   FALSE
## 81                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 82                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 83                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 84                <NA>              (T) Rack, Roadbed and Structures   FALSE
## 85                <NA> (M) Miscellaneous Causes Not Otherwise Listed    TRUE
## 86                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 87                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 88                <NA>           (H) Train operation - Human Factors   FALSE
## 89                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 90                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
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## 92                <NA>           (H) Train operation - Human Factors   FALSE
## 93                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 94                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 95                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 96                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 97                <NA>        (E) Mechanical and Electrical Failures   FALSE
## 98                <NA>              (T) Rack, Roadbed and Structures   FALSE
## 99                <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 100               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 101               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 102               <NA>           (H) Train operation - Human Factors   FALSE
## 103               <NA>           (H) Train operation - Human Factors   FALSE
## 104               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 105               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 106               <NA>           (H) Train operation - Human Factors   FALSE
## 107               <NA>              (T) Rack, Roadbed and Structures   FALSE
## 108               <NA>        (E) Mechanical and Electrical Failures   FALSE
## 109               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 110               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 111               <NA>              (T) Rack, Roadbed and Structures   FALSE
## 112               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 113               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 114               <NA>           (H) Train operation - Human Factors    TRUE
## 115               <NA>              (T) Rack, Roadbed and Structures   FALSE
## 116               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 117               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 118               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 119               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 120               <NA>           (H) Train operation - Human Factors    TRUE
## 121               <NA>           (H) Train operation - Human Factors   FALSE
## 122               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 123               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 124               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
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## 127               <NA>           (H) Train operation - Human Factors    TRUE
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## 131               <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
```

```
## 132              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 133              <NA>        (E) Mechanical and Electrical Failures   FALSE
## 134              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 135              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 136              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 137              <NA>           (H) Train operation - Human Factors   FALSE
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## 141              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
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## 144              <NA>              (T) Rack, Roadbed and Structures   FALSE
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## 152              <NA>              (T) Rack, Roadbed and Structures   FALSE
## 153              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
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## 155              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
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## 157              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 158              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 159              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 160              <NA>           (H) Train operation - Human Factors    TRUE
## 161              <NA>              (T) Rack, Roadbed and Structures   FALSE
## 162              <NA> (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 163               ATK           (H) Train operation - Human Factors    TRUE
## 164           CENTRAL (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 165                           (H) Train operation - Human Factors   FALSE
## 166        CALIFORNIA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 167          STOCKTON (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 168                   (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 169                   (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 170            JOLIET (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 171             AKRON (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 172        REISOR SUB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 173            SYSTEM (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 174                   (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 175            NEVADA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 176                   (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 177           SEATTLE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 178      MICHIGAN LINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 179             YAZOO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 180            VALLEY (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 181       SOUTH JERSEY              (T) Rack, Roadbed and Structures   FALSE
## 182                 LR (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 183          SAN DIEGO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 184      MICHIGAN LINE           (H) Train operation - Human Factors   FALSE
## 185             ORLANDO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
```

```
## 186                CEN        (E) Mechanical and Electrical Failures   FALSE
## 187             MCCOMB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 188          TOYAH SUB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 189            CENTRAL (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 190             SYSTEM              (T) Rack, Roadbed and Structures   FALSE
## 191        BAKERSFIELD (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 192             DALLAS (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 193        BATON ROUGE           (H) Train operation - Human Factors   FALSE
## 194        BAKERSFIELD (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 195           PIEDMONT (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 196          SAN DIEGO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 197           FT WORTH (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 198                GCE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 199     NEW HAVEN LINE              (T) Rack, Roadbed and Structures   FALSE
## 200      LAFAYETTE SUB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 201            HOBOKEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 202             CAMDEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 203            HOBOKEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 204             VALLEY (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 205      JONESBORO SUB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 206            STAPLES (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 207         AWP W OF A (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 208            OTTUMWA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 209              YAZOO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 210        HUDSON LINE           (H) Train operation - Human Factors   FALSE
## 211        CHESTER SUB           (H) Train operation - Human Factors    TRUE
## 212       PHILADELPHIA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 213           PIEDMONT              (T) Rack, Roadbed and Structures   FALSE
## 214            GLIDDEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 215               WPYR              (T) Rack, Roadbed and Structures   FALSE
## 216                NST (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 217              MIAMI (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 218           STOCKTON (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 219             MCCOMB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 220    STATE SUPPORTED (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 221             AUSTIN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 222       ST LOUIS LINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 223        C AND M SUB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 224           STOCKTON (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 225  NORTHEAST CORRIDOR (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 226            GLIDDEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 227          NORTH END (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 228             ROXBURY (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 229             ALABAMA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 230           FT WORTH (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 231  NORTHEAST CORRIDOR           (H) Train operation - Human Factors    TRUE
## 232        HARLEM LINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 233             CAMDEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 234           BEAUMONT              (T) Rack, Roadbed and Structures   FALSE
## 235             MCCOMB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 236    LOS ANGELES SUB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 237      SANTA BARBARA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 238    NON SUBDIVISION        (E) Mechanical and Electrical Failures   FALSE
## 239             JOLIET (M) Miscellaneous Causes Not Otherwise Listed   FALSE
```

```
## 240              HAMLET (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 241           NORTH END (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 242         DEVILS LAKE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 243               YAZOO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 244          FITZGERALD (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 245         BAKERSFIELD (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 246             ORLANDO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 247            BROOKLYN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 248               YAZOO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 249             ALABAMA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 250            LA JUNTA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 251               YAZOO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 252               YAZOO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 253              CAMDEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 254                 NEC           (H) Train operation - Human Factors   FALSE
## 255            STOCKTON (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 256               RATON (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 257            LAKELAND (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 258 SOUTHFLRAILCORRIDOR (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 259                 DFW (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 260             CHICAGO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 261            MARTINEZ (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 262             OAKLAND (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 263             HOBOKEN           (H) Train operation - Human Factors   FALSE
## 264              JOLIET (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 265            LAKEWOOD           (H) Train operation - Human Factors   FALSE
## 266             SEATTLE           (H) Train operation - Human Factors   FALSE
## 267              HAMLET (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 268            KEYSTONE           (H) Train operation - Human Factors   FALSE
## 269      NEW HAVEN LINE           (H) Train operation - Human Factors   FALSE
## 270         BAKERSFIELD (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 271             CARTERS (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 272             ORLANDO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 273                SOSS        (E) Mechanical and Electrical Failures   FALSE
## 274              SYSTEM (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 275      HARRISBURG SUB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 276              NEWARK              (T) Rack, Roadbed and Structures   FALSE
## 277              NEWARK              (T) Rack, Roadbed and Structures    TRUE
## 278              SYSTEM           (H) Train operation - Human Factors   FALSE
## 279              A LINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 280              NO & M (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 281          AUBURNDALE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 282      NORTH MOUNTAIN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 283              MCCOMB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 284             GLIDDEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 285                 TRE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 286         LITTLE ROCK (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 287            COLUMBIA           (H) Train operation - Human Factors   FALSE
## 288               FLINT (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 289            SAVANNAH (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 290    ATLANTA TERMINAL (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 291             MENDOTA (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 292                SOSS (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 293              NEWARK (M) Miscellaneous Causes Not Otherwise Listed   FALSE
```

```
## 294             HOBOKEN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 295             SANFORD (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 296           VALENTINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 297            BEAUMONT (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 298              MCCOMB (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 299            MICHIGAN (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 300            MARTINEZ (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 301            MAINLINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 302         HARLEM LINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 303        CHICAGO LINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 304                  EC (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 305               YAZOO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 306              GEORGIA             (T) Rack, Roadbed and Structures   FALSE
## 307        LIRRMAINLINE (M) Miscellaneous Causes Not Otherwise Listed   FALSE
## 308             CHICAGO (M) Miscellaneous Causes Not Otherwise Listed   FALSE
##      Time24hr Casualty freq
## 1   23.666667       50    1
## 2    8.516667       41    1
## 3    8.516667        9    1
## 4    8.516667       16    1
## 5    8.516667       25    1
## 6    8.516667       18    1
## 7    8.516667        4    1
## 8    8.516667        4    1
## 9    8.516667       16    1
## 10   8.516667       19    1
## 11   8.516667        5    1
## 12   8.516667        5    1
## 13   8.516667       10    1
## 14   8.516667     1001    1
## 15   8.516667        4    1
## 16   8.516667        5    1
## 17   8.516667        4    1
## 18   8.516667       72    1
## 19   8.516667        4    1
## 20   8.516667       18    1
## 21   8.516667        5    1
## 22   8.516667       55    1
## 23   8.516667        6    1
## 24   8.516667        4    1
## 25   8.516667       19    1
## 26   8.516667       16    1
## 27   8.516667      136    1
## 28   8.516667        6    1
## 29   8.516667        4    1
## 30   8.516667        5    1
## 31   8.516667       37    1
## 32   8.516667        8    1
## 33   8.516667        4    1
## 34   8.516667        4    1
## 35   8.516667        9    1
## 36   8.516667       16    1
## 37   8.516667       24    1
## 38   8.516667        5    1
```

```
## 39   8.516667       54    1
## 40   8.516667       20    1
## 41   8.516667        4    1
## 42   8.516667        4    1
## 43   8.516667        9    1
## 44   8.516667       18    1
## 45   8.516667       45    1
## 46   8.516667       29    1
## 47   8.516667        5    1
## 48   8.516667        6    1
## 49   8.516667        4    1
## 50   8.516667       82    1
## 51   8.516667        6    1
## 52   8.516667        4    1
## 53   8.516667        5    1
## 54   8.516667        4    1
## 55   8.516667       32    1
## 56   8.516667        6    1
## 57   8.516667        4    1
## 58   8.516667        4    1
## 59   8.516667        5    1
## 60   8.516667       45    1
## 61   8.516667        4    1
## 62   8.516667       10    1
## 63   8.516667       23    1
## 64   8.516667        5    1
## 65   8.516667       35    1
## 66   8.516667        5    1
## 67   8.516667        4    1
## 68   8.516667        6    1
## 69   8.516667       15    1
## 70   8.516667      157    1
## 71   8.516667        4    1
## 72   8.516667      301    1
## 73   8.516667       45    1
## 74   8.516667        4    1
## 75   8.516667       47    1
## 76   8.516667        7    1
## 77   8.516667       11    1
## 78   8.516667        4    1
## 79   8.516667        4    1
## 80   8.516667        8    1
## 81   8.516667        9    1
## 82   8.516667        4    1
## 83   8.516667       11    1
## 84   8.516667        7    1
## 85   8.516667        4    1
## 86   8.516667        4    1
## 87   8.516667       28    1
## 88   8.516667       17    1
## 89   8.516667        4    1
## 90   8.516667        7    1
## 91   8.516667        4    1
## 92   8.516667        4    1
```

```
## 93   8.516667        4    1
## 94   8.516667        5    1
## 95   8.516667        6    1
## 96   8.516667        8    1
## 97   8.516667        4    1
## 98   8.516667       34    1
## 99   8.516667        5    1
## 100  8.516667        4    1
## 101  8.516667       14    1
## 102  8.516667        4    1
## 103  8.516667        5    1
## 104  8.516667        9    1
## 105  8.516667        4    1
## 106  8.516667        6    1
## 107  8.516667        6    1
## 108  8.516667       22    1
## 109  8.516667        5    1
## 110  8.516667        4    1
## 111  8.516667        5    1
## 112  8.516667        6    1
## 113  8.516667       18    1
## 114  8.516667      136    1
## 115  8.516667        4    1
## 116  8.516667        6    1
## 117  8.516667       34    1
## 118  8.516667       10    1
## 119  8.516667        4    1
## 120  8.516667       16    1
## 121  8.516667       12    1
## 122  8.516667       14    1
## 123  8.516667       32    1
## 124  8.516667       40    1
## 125  8.516667        6    1
## 126  8.516667        4    1
## 127  8.516667       83    1
## 128  8.516667        7    1
## 129  8.516667      138    1
## 130  8.516667        7    1
## 131  8.516667        4    1
## 132  8.516667        4    1
## 133  8.516667        4    1
## 134  8.516667       11    1
## 135  8.516667        9    1
## 136  8.516667        4    1
## 137  8.516667       15    1
## 138  8.516667       10    1
## 139  8.516667        9    1
## 140  8.516667        5    1
## 141  8.516667        5    1
## 142  8.516667        7    1
## 143  8.516667       11    1
## 144  8.516667       12    1
## 145  8.516667        4    1
## 146  8.516667        6    1
```

```
## 147  8.516667        4    1
## 148  8.516667        6    1
## 149  8.516667        4    1
## 150  8.516667        9    1
## 151  8.516667        4    1
## 152  8.516667       14    1
## 153  8.516667        4    1
## 154  8.516667        4    1
## 155  8.516667        4    1
## 156  8.516667       17    1
## 157  8.516667       30    1
## 158  8.516667        5    1
## 159  8.516667       21    1
## 160  8.516667        4    1
## 161  8.516667       14    1
## 162  8.516667        4    1
## 163  8.516667       16    1
## 164  8.516667        9    1
## 165  8.516667       35    1
## 166  8.516667       22    1
## 167  8.516667       57    1
## 168  8.516667        7    1
## 169  8.516667       11    1
## 170  8.516667        9    1
## 171  8.516667       29    1
## 172  8.516667        4    1
## 173  8.516667       19    1
## 174  8.516667       32    1
## 175  8.516667      107    1
## 176  8.516667        8    1
## 177  8.516667        5    1
## 178  8.516667       17    1
## 179  8.516667        4    1
## 180  8.516667       10    1
## 181  8.516667      385    1
## 182  8.516667       19    1
## 183  8.516667        6    1
## 184  8.516667       15    1
## 185  8.516667       37    1
## 186  8.516667        5    1
## 187  8.516667        5    1
## 188  8.516667       28    1
## 189  8.516667        4    1
## 190  8.516667       11    1
## 191  8.516667        5    1
## 192  8.516667        8    1
## 193  8.516667        4    1
## 194  8.516667       47    1
## 195  8.516667       13    1
## 196  8.516667        7    1
## 197  8.516667        4    1
## 198  8.516667       24    1
## 199  8.516667       77    1
## 200  8.516667        4    1
```

```
## 201  8.516667       10    1
## 202  8.516667        5    1
## 203  8.516667        7    1
## 204  8.516667       22    1
## 205  8.516667        4    1
## 206  8.516667       13    1
## 207  8.516667        5    1
## 208  8.516667        4    1
## 209  8.516667       23    1
## 210  8.516667       86    1
## 211  8.516667        7    1
## 212  8.516667        7    1
## 213  8.516667       21    1
## 214  8.516667        7    1
## 215  8.516667       24    1
## 216  8.516667        7    1
## 217  8.516667        8    1
## 218  8.516667        6    1
## 219  8.516667        9    1
## 220  8.516667       16    1
## 221  8.516667        6    1
## 222  8.516667        5    1
## 223  8.516667        4    1
## 224  8.516667        4    1
## 225  8.516667        5    1
## 226  8.516667        4    1
## 227  8.516667        4    1
## 228  8.516667       13    1
## 229  8.516667        4    1
## 230  8.516667        4    1
## 231  8.516667      249    1
## 232  8.516667       46    1
## 233  8.516667        8    1
## 234  8.516667        4    1
## 235  8.516667       16    1
## 236  8.516667        4    1
## 237  8.516667       29    1
## 238  8.516667      197    1
## 239  8.516667       17    1
## 240  8.516667        8    1
## 241  8.516667       87    1
## 242  8.516667       12    1
## 243  8.516667        6    1
## 244  8.516667        4    1
## 245  8.516667        4    1
## 246  8.516667        7    1
## 247  8.516667       12    1
## 248  8.516667        6    1
## 249  8.516667        4    1
## 250  8.516667       60    1
## 251  8.516667        4    1
## 252  8.516667       14    1
## 253  8.516667        4    1
## 254  8.516667      125    1
```

```
## 255  8.516667        7    1
## 256  8.516667        8    1
## 257  8.516667        7    1
## 258  8.516667       23    1
## 259  8.516667        4    1
## 260  8.516667        5    1
## 261  8.516667        5    1
## 262  8.516667        9    1
## 263  8.516667      159    1
## 264  8.516667        4    1
## 265  8.516667       93    1
## 266  8.516667       16    1
## 267  8.516667       22    1
## 268  8.516667        6    1
## 269  8.516667        8    1
## 270  8.516667        4    1
## 271  8.516667        7    1
## 272  8.516667        9    1
## 273  8.516667        4    1
## 274  8.516667        9    1
## 275  8.516667        7    1
## 276  8.516667        7    1
## 277  8.516667        5    1
## 278  8.516667      113    1
## 279  8.516667        4    1
## 280  8.516667       45    1
## 281  8.516667        4    1
## 282  8.516667       11    1
## 283  8.516667       11    1
## 284  8.516667        5    1
## 285  8.516667        7    1
## 286  8.516667        6    1
## 287  8.516667      135    1
## 288  8.516667        5    1
## 289  8.516667        4    1
## 290  8.516667        4    1
## 291  8.516667        9    1
## 292  8.516667        5    1
## 293  8.516667        4    1
## 294  8.516667        4    1
## 295  8.516667        5    1
## 296  8.516667        4    1
## 297  8.516667       22    1
## 298  8.516667       10    1
## 299  8.516667        4    1
## 300  8.516667        5    1
## 301  8.516667        4    1
## 302  8.516667        5    1
## 303  8.516667        6    1
## 304  8.516667        4    1
## 305  8.516667       11    1
## 306  8.516667        6    1
## 307  8.516667       11    1
## 308  8.516667        8    1
```

```r
print("Fraction of total accidents that are above upper whisker:")
```

```
## [1] "Fraction of total accidents that are above upper whisker:"
```

```r
# count(tib %>% filter(Casualty > upper))/count(tib)

print("Fraction of total casualties that occurred in extreme accidents:")
```

```
## [1] "Fraction of total casualties that occurred in extreme accidents:"
```

```r
tot_cas <- tib %>% summarize(Casualties = sum(Casualty))
xtrm_cas <- tib %>% filter(Casualty > upper) %>% summarize(Casualties = sum(Casualty))
xtrm_cas/tot_cas
```

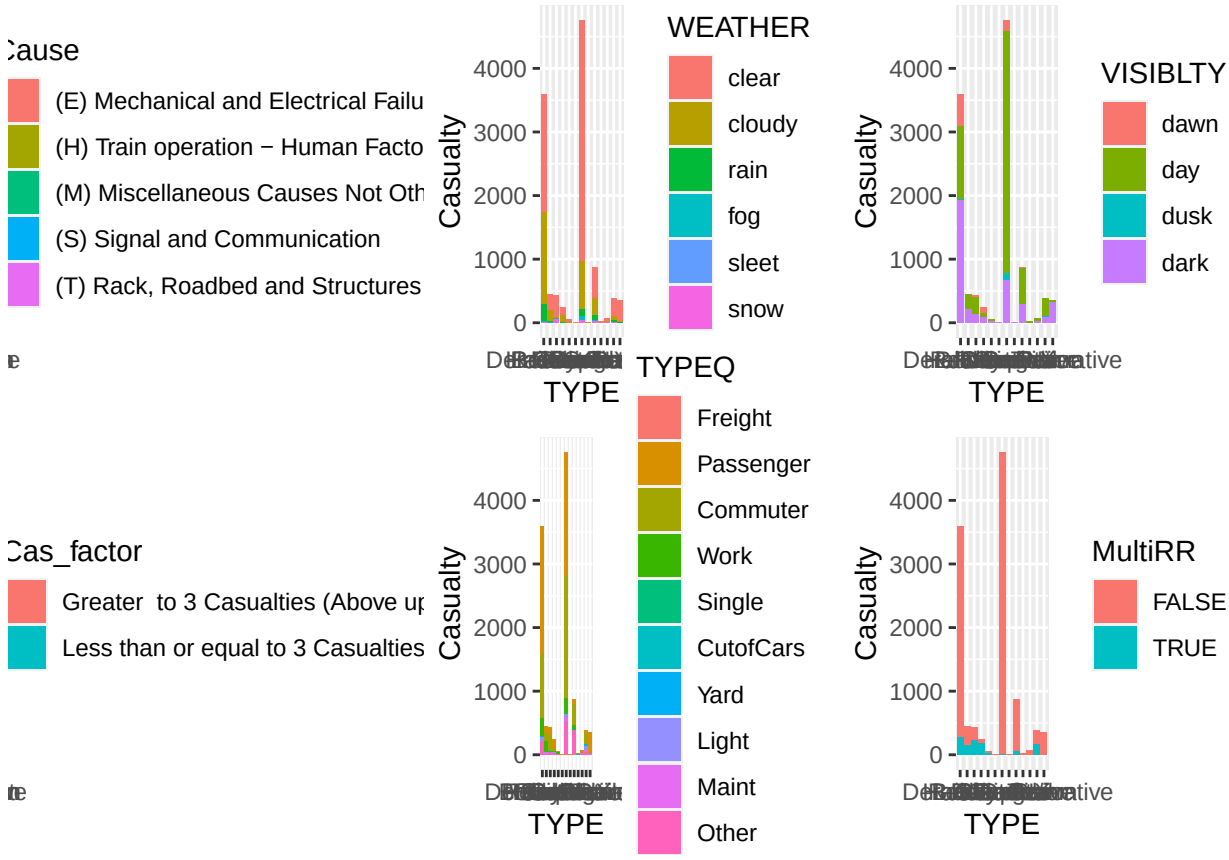
```
##   Casualties
## 1  0.6384417
```

```r
print("This means that 10% of the accidents are responsible for 64% of casualties.")
```

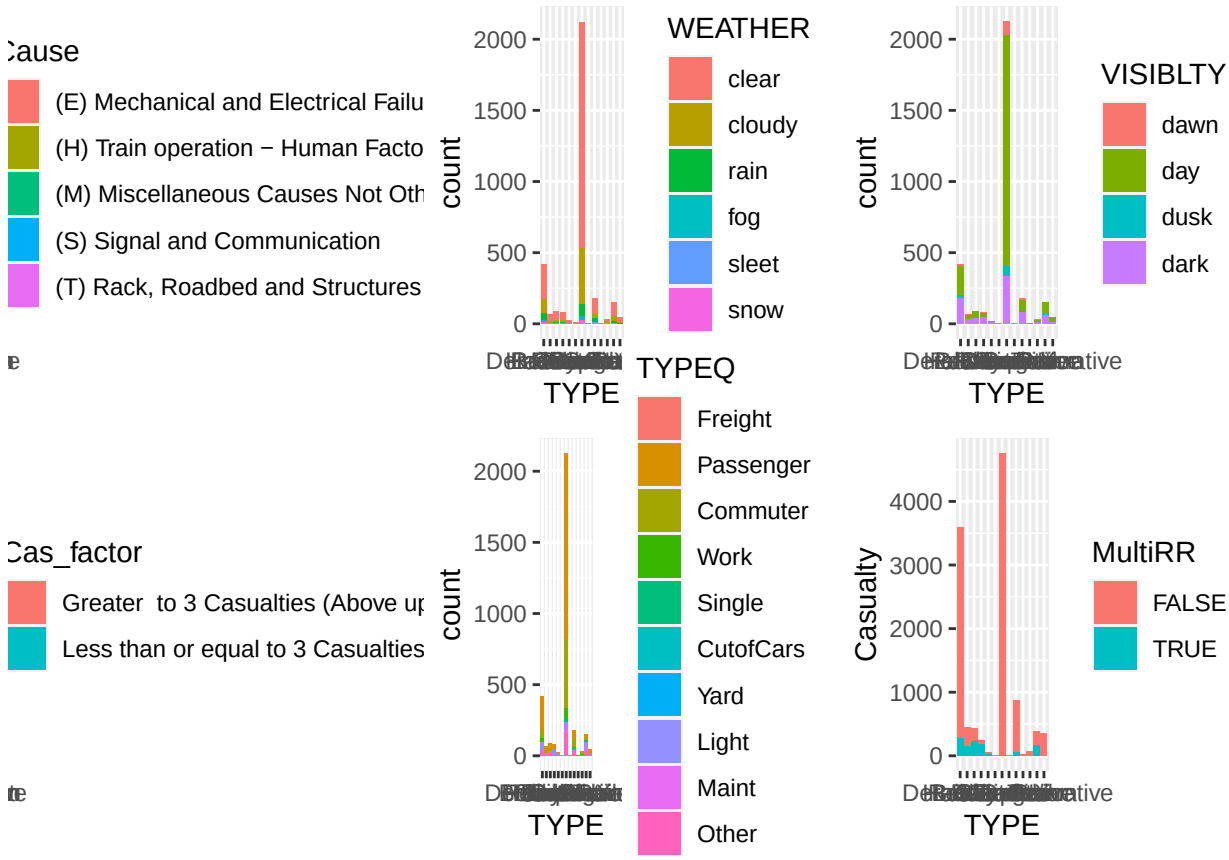
```
## [1] "This means that 10% of the accidents are responsible for 64% of casualties."
```

```r
## Inspecting for potential relationships between categorical variables
totacts_wCasualties_DR$Cas_factor <- rep(NA, nrow(totacts_wCasualties_DR))

totacts_wCasualties_DR$Cas_factor[which(totacts_wCasualties_DR$Casualty <= 3)] <- "Less than or equal to
totacts_wCasualties_DR$Cas_factor[which(totacts_wCasualties_DR$Casualty > 3)] <- "Greater  to 3 Casualti
totacts_wCasualties_DR$Cas_factor <- factor(totacts_wCasualties_DR$Cas_factor)

### (SUM) What other conditions are present for each casualty?
plt_1 <- ggplot(totacts_wCasualties_DR,aes(TYPE,Casualty,fill=Cause)) + geom_col(na.rm=TRUE)

plt_2 <- ggplot(totacts_wCasualties_DR,aes(TYPE,Casualty,fill=WEATHER)) + geom_col(na.rm=TRUE)

plt_3 <- ggplot(totacts_wCasualties_DR,aes(TYPE,Casualty,fill=VISIBLTY)) + geom_col(na.rm=TRUE)

plt_4 <- ggplot(totacts_wCasualties_DR,aes(TYPE,Casualty,fill=Cas_factor)) + geom_col(na.rm=TRUE)

plt_5 <- ggplot(totacts_wCasualties_DR,aes(TYPE,Casualty,fill=TYPEQ)) + geom_col(na.rm=TRUE)

plt_6 <- ggplot(totacts_wCasualties_DR,aes(TYPE,Casualty,fill=MultiRR)) + geom_col(na.rm=TRUE)
### (COUNT) What other conditions are present for each accident with a casualty?
plt_7 <- ggplot(totacts_wCasualties_DR,aes(TYPE,fill=Cause)) + geom_bar(na.rm=TRUE)

plt_8 <- ggplot(totacts_wCasualties_DR,aes(TYPE,fill=WEATHER)) + geom_bar(na.rm=TRUE)

plt_9 <- ggplot(totacts_wCasualties_DR,aes(TYPE,fill=VISIBLTY)) + geom_bar(na.rm=TRUE)

plt_10 <- ggplot(totacts_wCasualties_DR,aes(TYPE,fill=Cas_factor)) + geom_bar(na.rm=TRUE)

plt_11 <- ggplot(totacts_wCasualties_DR,aes(TYPE,fill=TYPEQ)) + geom_bar(na.rm=TRUE)
```

```
plt_12 <- ggplot(totacts_wCasualties_DR,aes(TYPE,Casualty,fill=MultiRR)) + geom_col(na.rm=TRUE)

ggarrange(plt_1, plt_2, plt_3, plt_4, plt_5, plt_6, nrow = 2, ncol = 3)
```



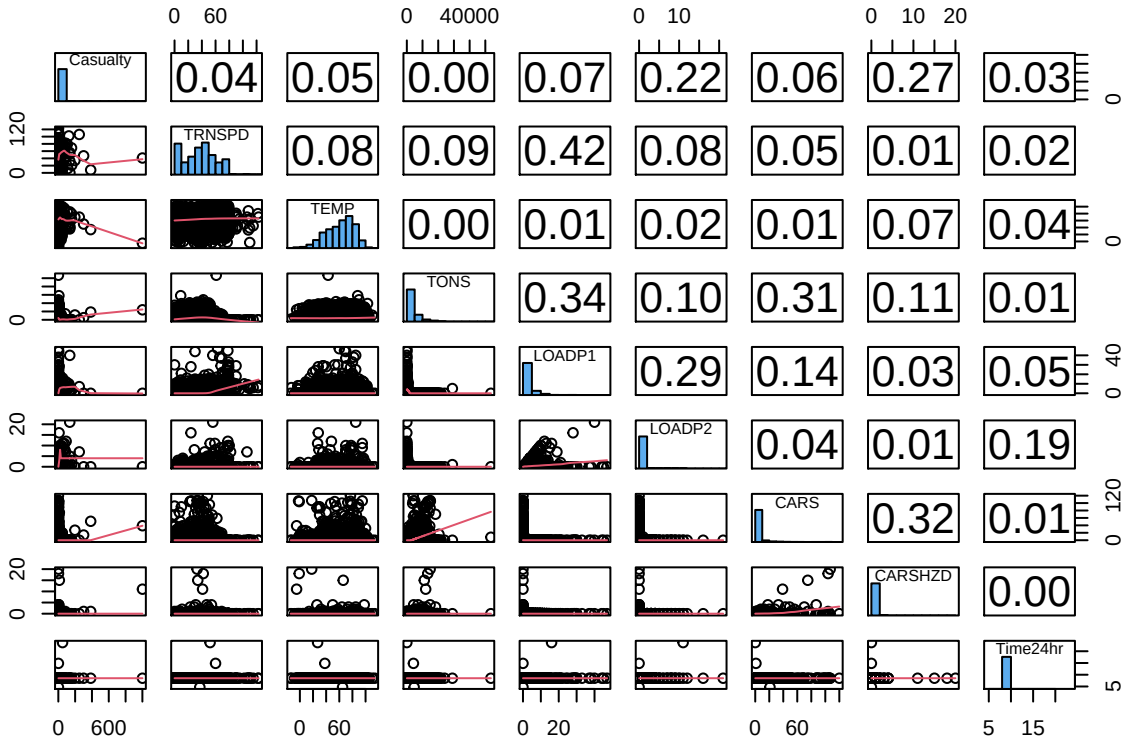

```
ggarrange(plt_7, plt_8, plt_9, plt_10, plt_11, plt_12, nrow = 2, ncol = 3)
```




```
print("There is a possible interaction between Derailments and Dark Visibility vs. Casualties and Derail
```

```
## [1] "There is a possible interaction between Derailments and Dark Visibility vs. Casualties and Derai
```

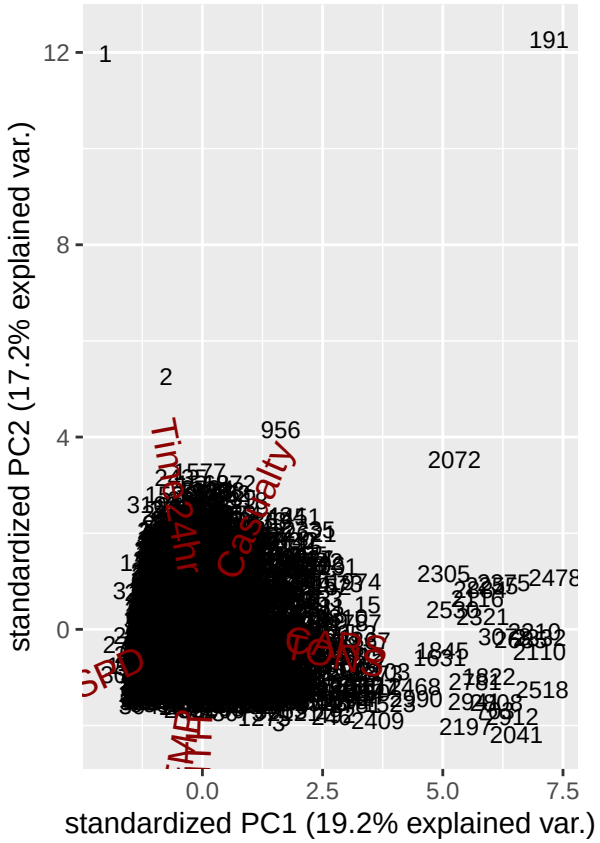
```
## Looking for correlation between quantitative variables and casualties:
### Variables tested: "Casualty", "TRNSPD", "TONS", "CARS", "TEMP", "POSITON2", "HEADEND1", "HEADEND2",

uva.pairs(totacts_wCasualties_DR[, c("Casualty", "TRNSPD", "TEMP", "TONS", "LOADP1", "LOADP2", "CARS",
```




```
print("These are the four variables with the highest correlations coefficient. Unsurprisingly, the LOADI
```

```
## [1] "These are the four variables with the highest correlations coefficient. Unsurprisingly, the LOAI
```

```
## Doing PCA to look for hidden quantitative relationships:
# Perform PCA using the correlation matrix
totacts_wCasualties.pca <- princomp(totacts_wCasualties_DR[,c("Casualty", "TRNSPD", "CARS", "Time24hr",

ggbiplot(totacts_wCasualties.pca, varname.size = 5, labels=row(totacts_wCasualties_DR)[,1], main="Biplo
```

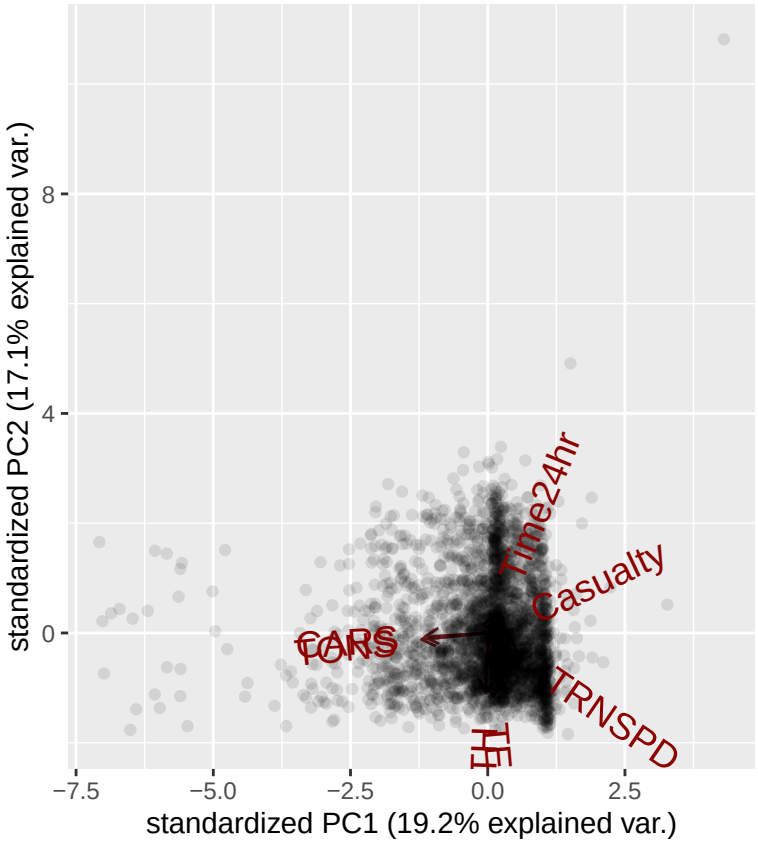



```
### Inspecting outliers:
totacts_wCasualties_DR[191, ]
```

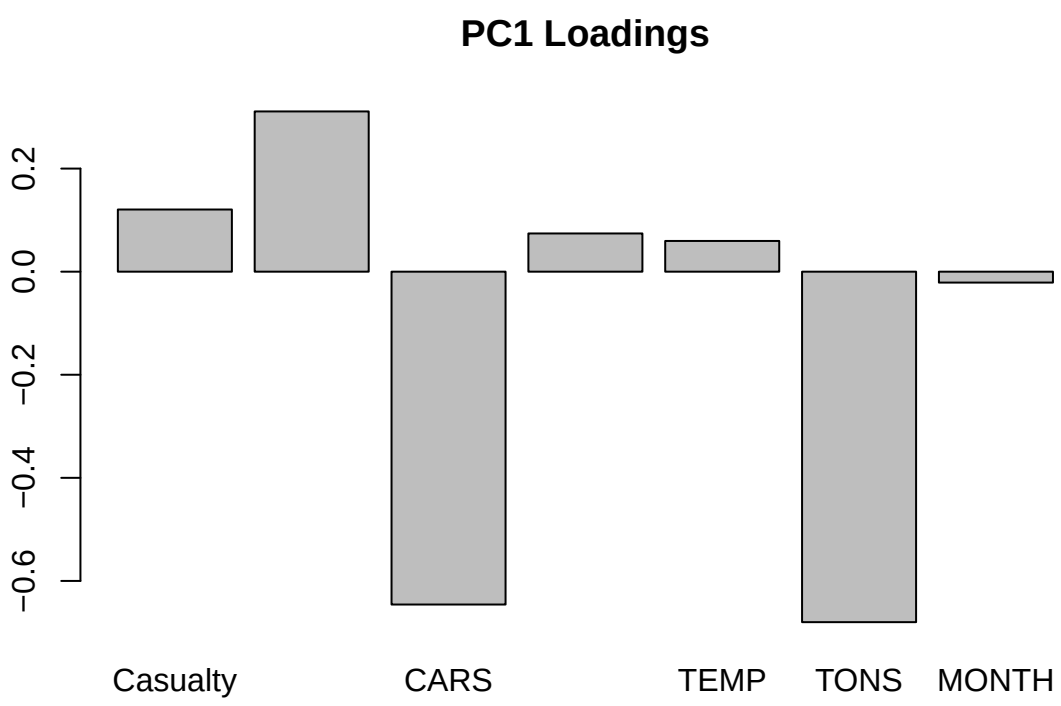
```
##     ï..IYR IMO RAILROAD INCDTNO IYR2 IMO2 RR2 INCDTNO2 IYR3 IMO3 RR3 INCDTNO3
## 191      2   1      SOO  170488   NA   NA                2    1 SOO   170488
##     DUMMY1 GXID YEAR MONTH DAY TIMEHR TIMEMIN AMPM       TYPE CARS CARSDMG
## 191     NA          2     1  18      1      39   AM Derailment   39      15
##     CARSHZD EVACUATE DIVISION STATION MILEPOST STATE TEMP VISIBLTY WEATHER
## 191      11       75  ST PAUL   MINOT    471.6    38   -5     dark  cloudy
##     TRNSPD TYPSPD TRNNBR TRNDIR  TONS     TYPEQ EQATT     TRKNAME TRKCLAS
## 191     41      R    292      3 12015 Passenger     Y SINGLE MAIN       3
##     TRKDNSTY TYPTRK RRCAR1 CARNBR1 POSITON1 LOADED1 RRCAR2 CARNBR2 POSITON2
## 191   000024      1    SOO   73223        6       Y             NA        0
##     LOADED2 HEADEND1 MIDMAN1 MIDREM1 RMAN1 RREM1 HEADEND2 MIDMAN2 MIDREM2 RMAN2
## 191               2       0       0     0     0        0       0       0     0
##     RREM2 LOADF1 LOADP1 EMPTYF1 EMPTYP1 CABOOSE1 LOADF2 LOADP2 EMPTYF2 EMPTYP2
## 191     0     86      0      26       0        0     26      0       5       0
##     CABOOSE2  EQPDMG TRKDMG CAUSE CAUSE2 CASKLDRR CASINJRR CASKLD CASINJ
## 191        0 1037730 290000  T215              1        0      1      0
##     ACCAUSE ACCTRK ACCTRKCL HIGHSPD  ACCDMG DUMMY2 STCNTY TOTINJ DUMMY3 TOTKLD
## 191    T215      1        3      41 1327730     NA 38C101   1000      0       1
##     ENGRS FIREMEN CONDUCTR BRAKEMEN ENGHR ENGMIN CDTRHR CDTRMIN JOINTCD REGION
## 191     1       0        1        0     4     24      4      24       1      8
##     DUMMY4 TYPRR DUMMY5 RRDIV METHOD NARRLEN DUMMY6 YEAR4 RREMPKLD RREMPINJ
## 191           1L     NA            J    1499     NA  2002        0        1
##     PASSKLD PASSINJ OTHERKLD OTHERINJ COUNTY CNTYCD ALCOHOL DRUG DUMMY7 PASSTRN
```

```
## 191       0       0        1      999   WARD    101       0    0     NA       N
##     SSB1 SSB2
## 191      <NA>
##                                                                                         NA
## 191 CP TRAIN 292-16 (86 LOADS, 26 EMPTIES, 12,342 EGT) INCLUDING 15 LOADS ANHYDROUS AMMONIA; 10 LOADS
##                                                                                         NAI
## 191 G AND 11 LOADS STYRENE MONOMER INHIBITED, DERAILED 31 CARS, ALL ON THEIR SIDES, RESULTING IN HAZI
##                                                                                         NA
## 191 RELEASE FROM ELEVEN CARS (SEE APPENDED LIST) RESULTING IN SPILL OF APPROXIMATELY 590 TONS.  EVACU
##                                                                                         NA
## 191 ON OF APPROXIMATELY 20 HOMES IN A HALF-MILE RADIUS IMMEDIATELY EAST OF THE DERAILMENT SITE AND RI
##                                                                                         NA
## 191 NS IN EFFECT AS OF 2/27/02.  ONE FATALITY TO A MINOT, ND RESIDENT RESULTED DURING VOLUNTARY EVACU
##                                                                                         NA
## 191 ON.  APPROXIMATELY 1,000-2,000 PEOPLE WERE SEEN AND EVALUATED AT HOSPITALS AND CLINICS WITH SOME
##                                                                                         NAI
## 191 NG TREATED AND/OR ADMITTED INTO THE HOSPITAL.   EMERGENCY RESPONSE DISPATCHED, COMPANY PERSONNEL
##                                                                                         NAI
## 191 WELL AS NTSB AND FRA PERSONNEL AT SITE.  STATIONARY COMMAND CENTER SET UP AT LOCAL FIRE STATION A
##                                                                                         NA
## 191 A MOBILE COMMAND CENTER NEAREST DERAILMENT SITE HAS BEEN SET UP.  FIRE DEPARTMENT RESPONDED AND I
##                                                                                         NAI
## 191 D DOWN HAZMAT CARS.  SPAN OF DERAILMENT SITE TOTALED 475 FEET.  SINGLE MAIN CWR TRACK, CLASS 3, 4
##                                                                                         NAI
## 191 PH.  HULCHER RERAILED CARS.  SERVICE RESUMED AT APPROXIMATELY 0600 CST ON 1/23/02.  CONDUCTOR REI
##                                                                                         NAI
## 191 ED BEING INJURED DUE TO CHEMICAL EXPOSURE.  NO INJURIES SUSTAINED BY ANY CONTRACTOR PERSONNEL DUI
##                                                                                         NARRI
## 191 THE CLEAN-UP PROCESS.  NTSB PERSONNEL ON SITE AND INVESTIGATING CAUSE.  CAUSE UNDER INVESTIGATION
##                                                                                         NAI
## 191 FRA FORMS 6180.55A TO BE PROVIDED AS INFORMATION IS RECEIVED.   7/19/06 Ã»UPDATED CAUSE TO T215-
##                                                                                         NAI
## 191 NT BAR BROKEN (NON-INSULATED).  THE TOTAL NUMBER OF OTHERS NONFATAL IS ACTUALLY 1440.   ALL ELEVI
##     RCL Latitude Longitud SIGNAL MOPERA ADJUNCT1 ADJUNCT2 ADJUNCT3 SUBDIV
## 191  NA       NA       NA     NA     NA     <NA>     <NA>     <NA>   <NA>
##                                Cause MultiRR Time24hr Casualty
## 191 (T) Rack, Roadbed and Structures    FALSE 8.516667     1001
##                                          Cas_factor
## 191 Greater  to 3 Casualties (Above upper whisker)
```

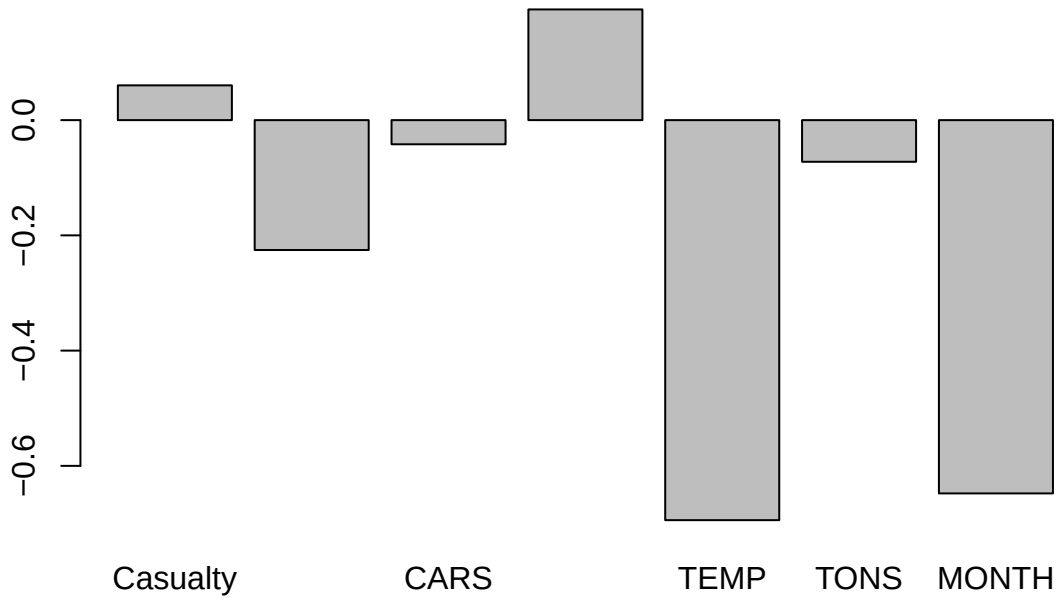
```
### Removing outliers:

df <- totacts_wCasualties_DR[-191,]

totacts_wCasualties.pca <- princomp(df[,c("Casualty", "TRNSPD", "CARS", "Time24hr", "TEMP", "TONS", "MOI

ggbiplot(totacts_wCasualties.pca, varname.size = 5, labels=NULL[,1], main="Biplot", alpha = 0.1)
```



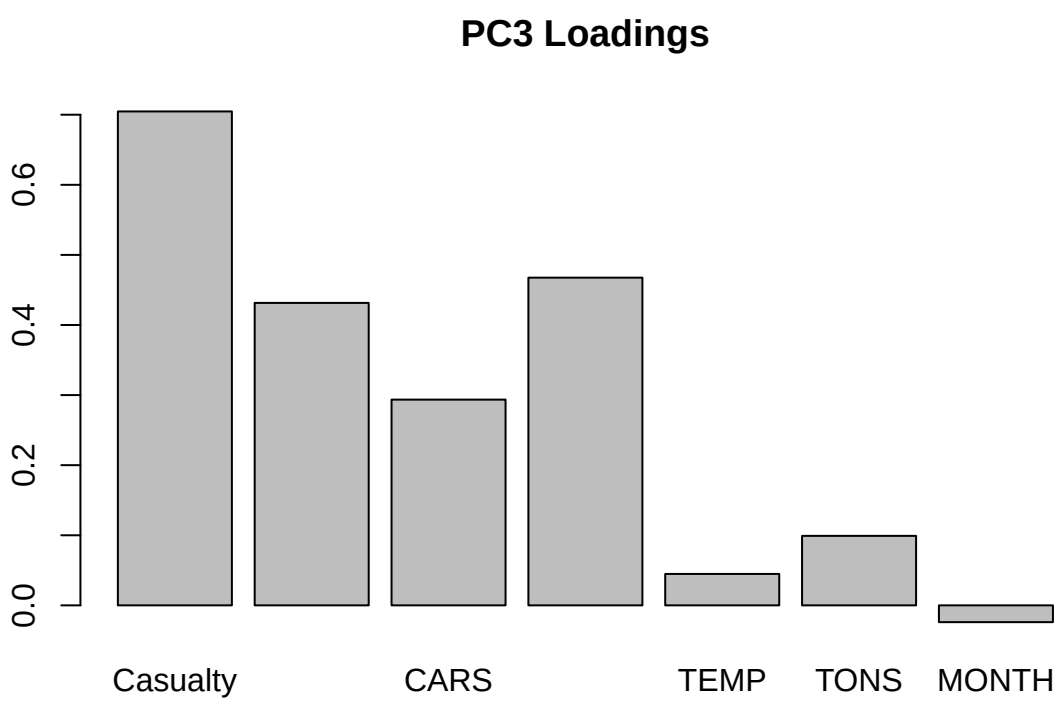

```
### Loadings on first 2 PCs
barplot(totacts_wCasualties.pca$loadings[,1], main="PC1 Loadings")
```




```
barplot(totacts_wCasualties.pca$loadings[,2], main='PC2 Loadings')
```




```
barplot(totacts_wCasualties.pca$loadings[,3], main='PC3 Loadings')
```




```
print("The loading on casualty is relatively insignificant until the 3rd PC where it moves with trainsp
```

```
## [1] "The loading on casualty is relatively insignificant until the 3rd PC where it moves with trainsp
```

```
## Interaction plots
### Decided to work with the dataframe with the most extreme accident removed
totacts_wCasualties_DR_ER <- df



### Define qualitative variables
  #### Create Day/Not Day as a variable
day <- rep(0, nrow(totacts_wCasualties_DR_ER))
day[which(totacts_wCasualties_DR_ER$VISIBLTY =='day')] <- 1
day <- as.factor(day)
contrasts(day)
```

```
##   1
## 0 0
## 1 1
```

```
  #### Clear/not clear as variable
clear <- rep(0, nrow(totacts_wCasualties_DR_ER))
clear[which(totacts_wCasualties_DR_ER$WEATHER =='clear')] <- 1
```

```r
clear <- as.factor(clear)
contrasts(clear)
```

```
##   1
## 0 0
## 1 1
```

```r
  #### Create highway-rail variable
HwyRail <- rep(0, nrow(totacts_wCasualties_DR_ER))
HwyRail[which(totacts_wCasualties_DR_ER$TYPE == 'Hwy-Rail')] <- 1
HwyRail <- as.factor(HwyRail)
contrasts(HwyRail)
```

```
##   1
## 0 0
## 1 1
```

```r
  #### Create derailment variable
Derail <- rep(0, nrow(totacts_wCasualties_DR_ER))
Derail[which(totacts_wCasualties_DR_ER$TYPE == 'Derailment')] <- 1
Derail <- as.factor(Derail)
contrasts(Derail)
```

```
##   1
## 0 0
## 1 1
```

```r
  #### Create passenger or commuter variable
Pass_or_Comm <- rep(0, nrow(totacts_wCasualties_DR_ER))
Pass_or_Comm[which(totacts_wCasualties_DR_ER$TYPEQ == 'Passenger' | totacts_wCasualties_DR_ER$TYPEQ ==
Pass_or_Comm <- as.factor(Pass_or_Comm)
contrasts(Pass_or_Comm)
```

```
##   1
## 0 0
## 1 1
```

```r
  #### Cause - Train roadbed and structures
clear <- rep(0, nrow(totacts_wCasualties_DR_ER))
clear[which(totacts_wCasualties_DR_ER$WEATHER =='clear')] <- 1
clear <- as.factor(clear)
contrasts(clear)
```

```
##   1
## 0 0
## 1 1
```

```r
### Quantitative Variables

  #### Create TRNSPD variable
```

```
TrnSpd_box <- ggplot(totacts_wCasualties_DR_ER, aes(y=TRNSPD)) + geom_boxplot()

med <- ggplot_build(TrnSpd_box)$data[[1]]$middle

TRNSPD.factor <- totacts_wCasualties_DR_ER$TRNSPD
TRNSPD.factor[which(totacts_wCasualties_DR_ER$TRNSPD<med)]<-'low train speed'
TRNSPD.factor[which(totacts_wCasualties_DR_ER$TRNSPD>=med)]<-'high train speed'
TRNSPD.factor <- factor(TRNSPD.factor)
contrasts(TRNSPD.factor)
```

```
##                  low train speed
## high train speed               0
## low train speed                1
```

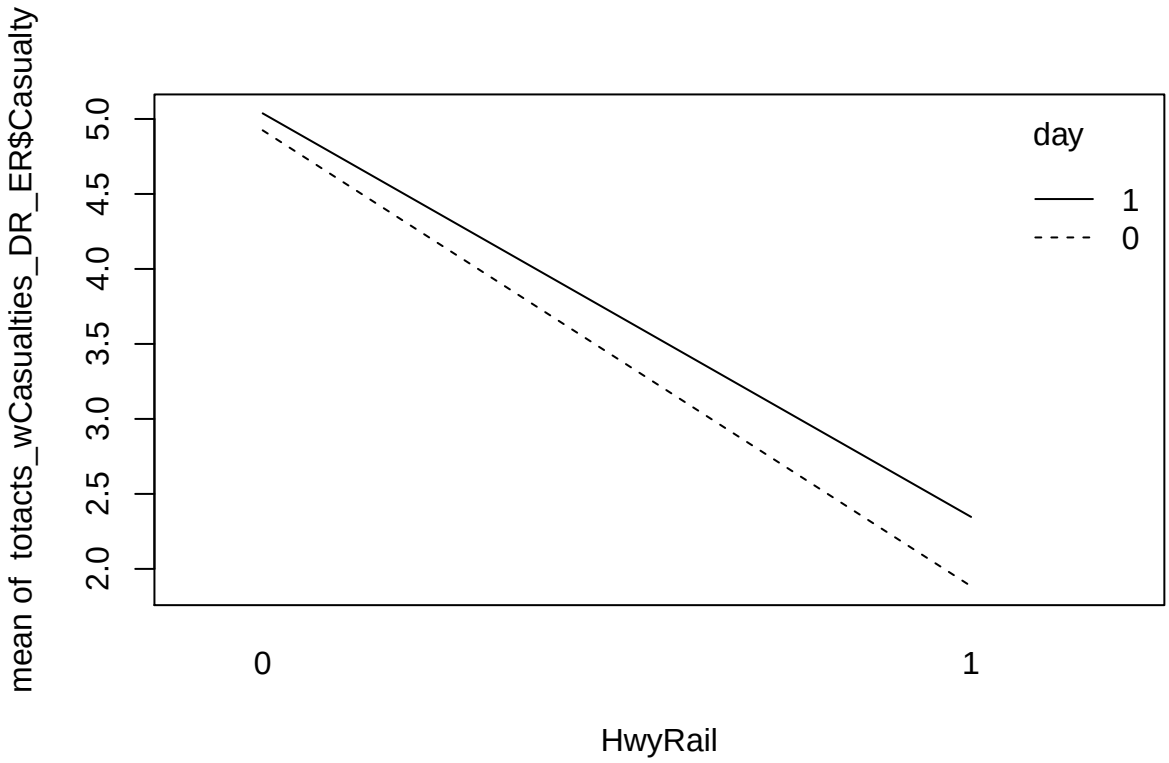
```
  #### Create CARS variable
CARS.factor <- totacts_wCasualties_DR_ER$CARS
CARS.factor[which(totacts_wCasualties_DR_ER$CARS == 0)]<-'No Hazard Cars'
CARS.factor[which(totacts_wCasualties_DR_ER$CARS > 0)]<-'1 or More Hazard Cars'
CARS.factor <- factor(CARS.factor)
contrasts(CARS.factor)
```

```
##                        No Hazard Cars
## 1 or More Hazard Cars              0
## No Hazard Cars                     1
```

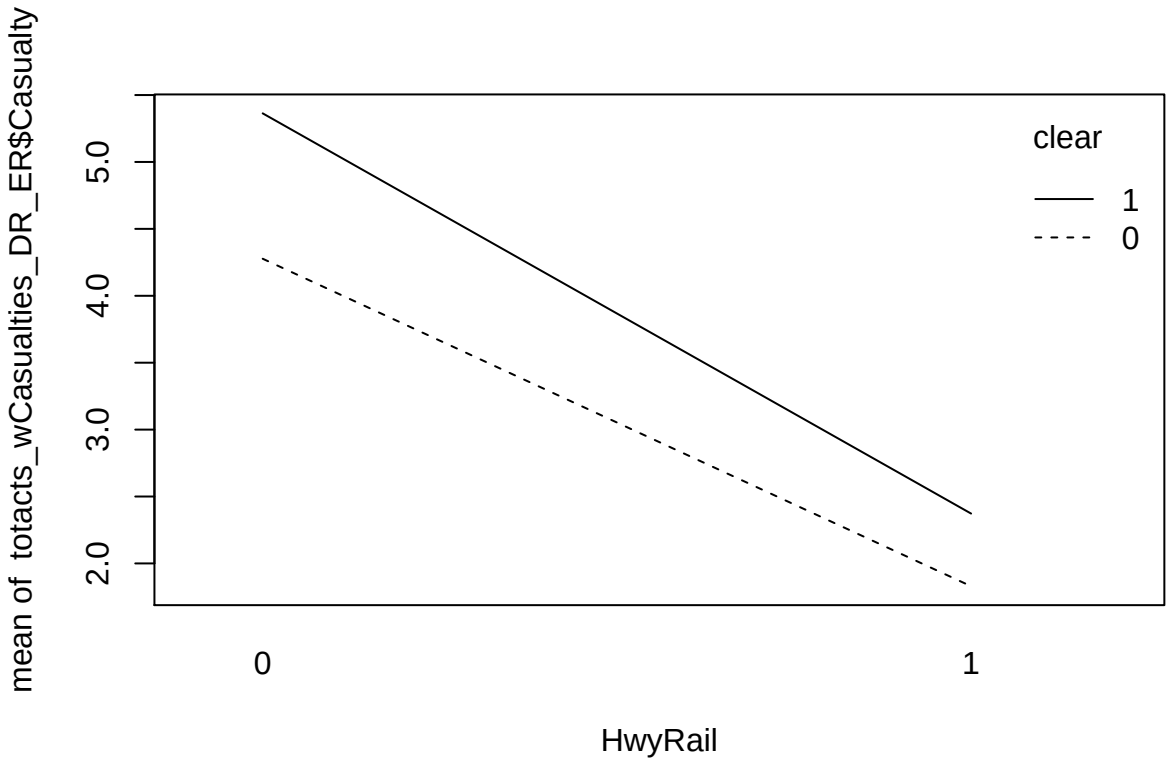
```
  #### Create TONS variable
Tons_box <- ggplot(totacts_wCasualties_DR_ER, aes(y=TONS)) + geom_boxplot()

med <- ggplot_build(Tons_box)$data[[1]]$middle

TONS.factor <- totacts_wCasualties_DR_ER$TONS
TONS.factor[which(totacts_wCasualties_DR_ER$TONS<med)]<-'Low tonnage'
TONS.factor[which(totacts_wCasualties_DR_ER$TONS>=med)]<-'high tonnage'
TONS.factor <- factor(TONS.factor)
contrasts(TONS.factor)
```

```
##              Low tonnage
## high tonnage           0
## Low tonnage            1
```

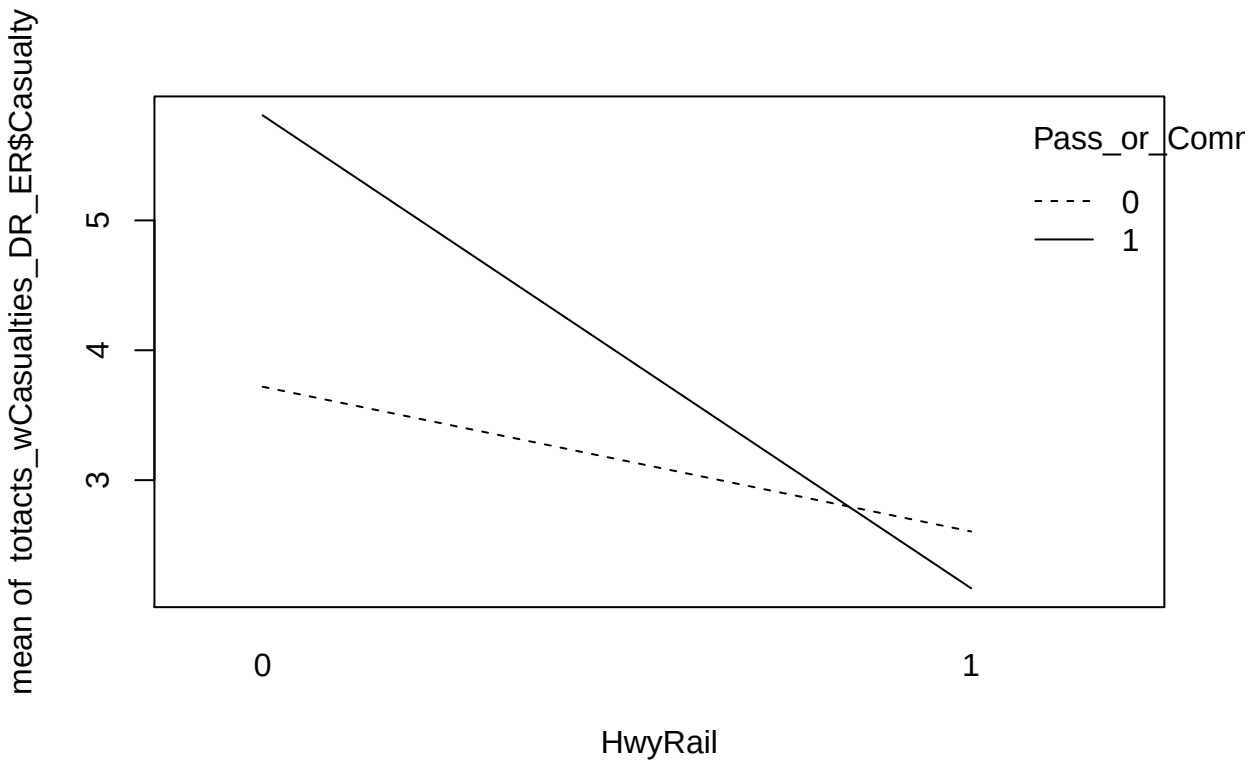
```
### Plot
  #### Variables of interest: day, clear, HwyRail, Derail, Pass_or_Comm, TRNSPD.factor, CARS.factor, TO

  #### Highway Rail Plots
  # Interaction of highway rail and day
interaction.plot(HwyRail, day, totacts_wCasualties_DR_ER$Casualty)
```



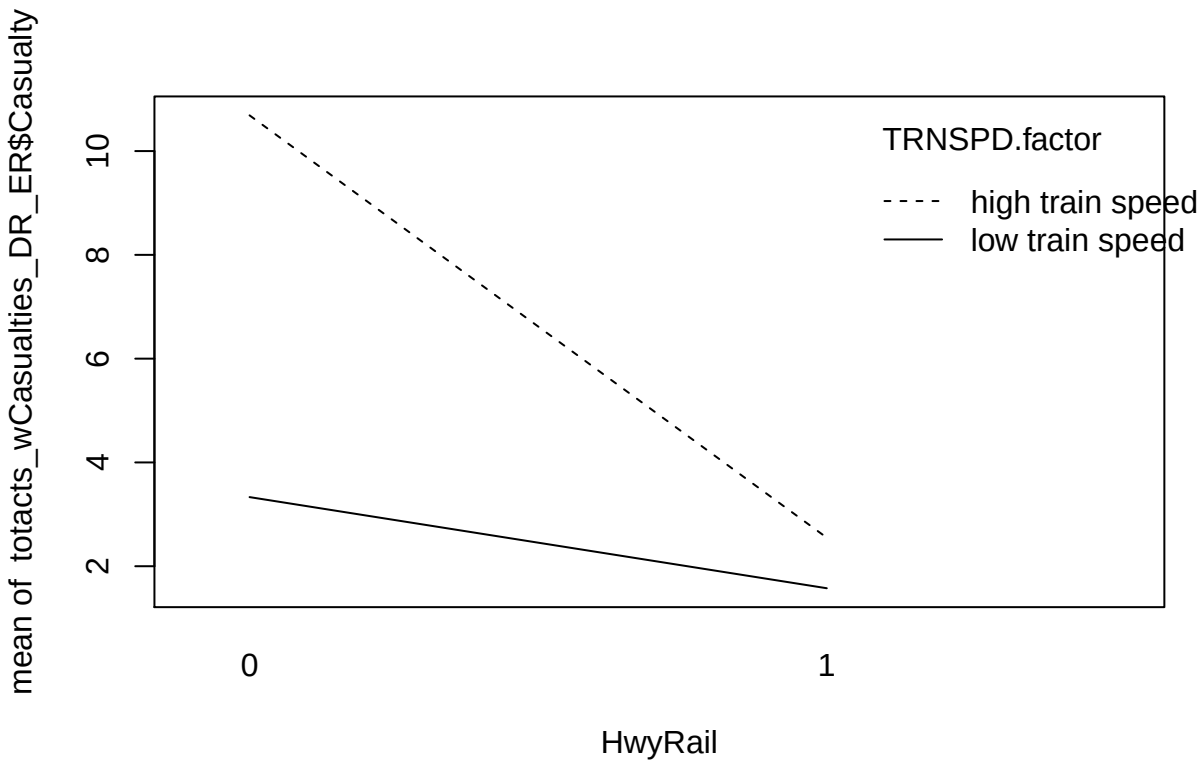

```
  # Interaction of highway rail and clear
interaction.plot(HwyRail, clear, totacts_wCasualties_DR_ER$Casualty)
```



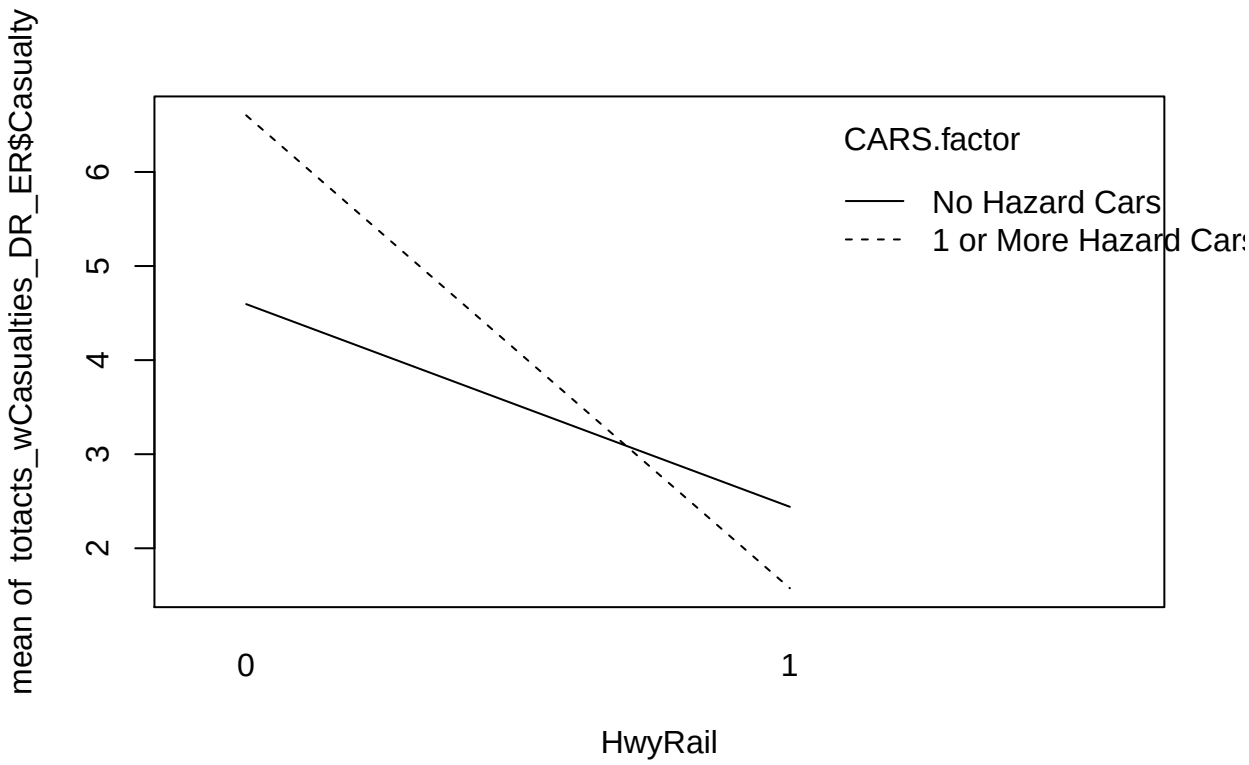

```
  # Interaction of highway rail and Pass_or_Comm
interaction.plot(HwyRail, Pass_or_Comm, totacts_wCasualties_DR_ER$Casualty)
```



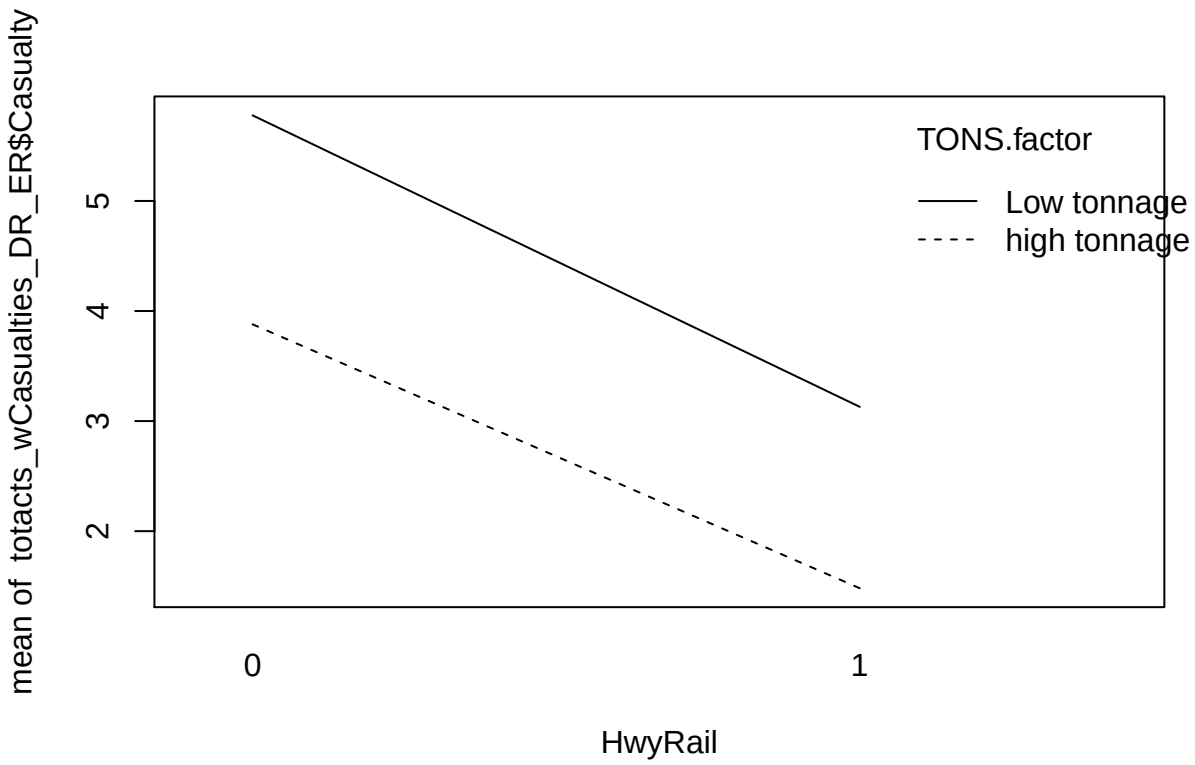

```
  # Interaction of highway rail and TRNSPD.factor
interaction.plot(HwyRail, TRNSPD.factor, totacts_wCasualties_DR_ER$Casualty)
```



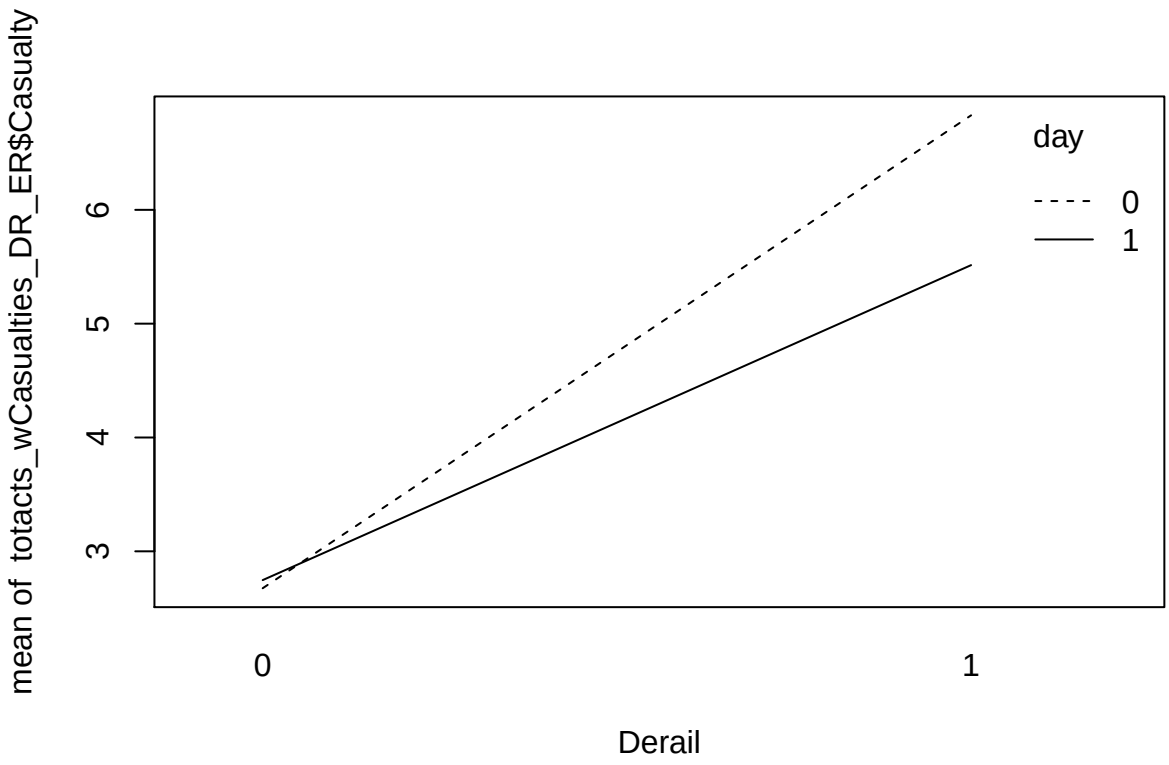

```
  # Interaction of highway rail and CARS.factor
interaction.plot(HwyRail, CARS.factor, totacts_wCasualties_DR_ER$Casualty)
```



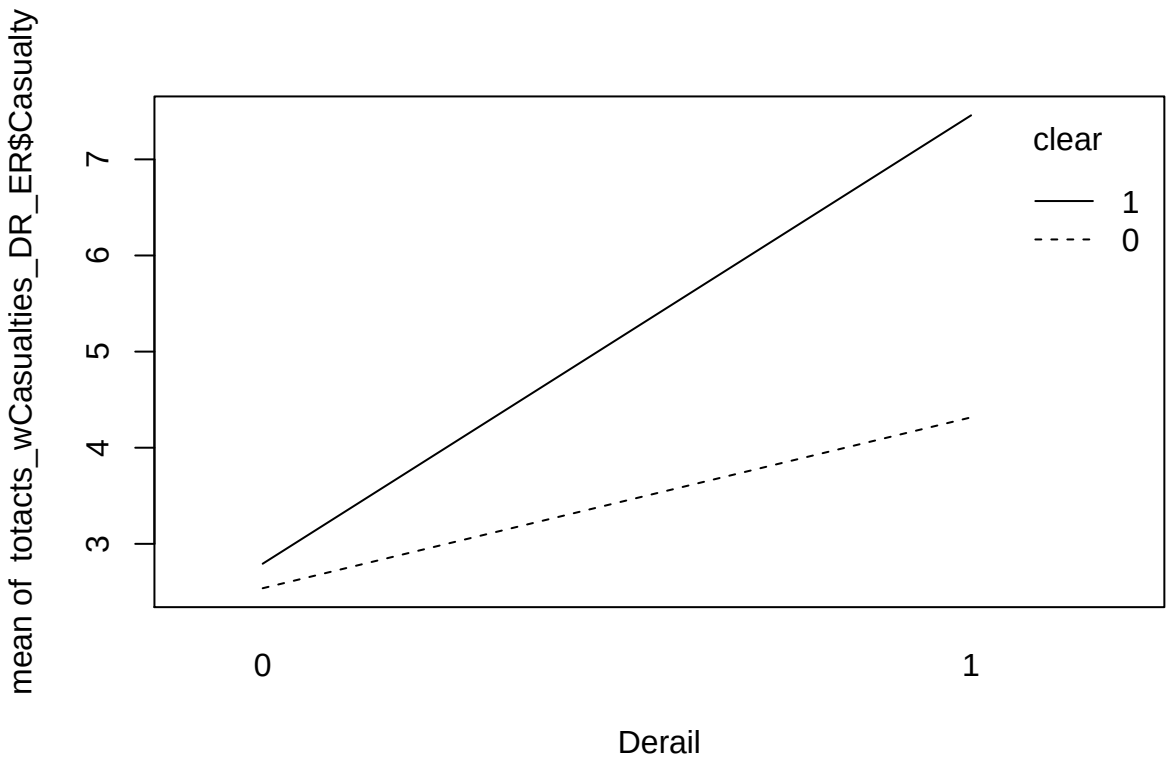

```
  # Interaction of highway rail and TONS.factor
interaction.plot(HwyRail, TONS.factor, totacts_wCasualties_DR_ER$Casualty)
```



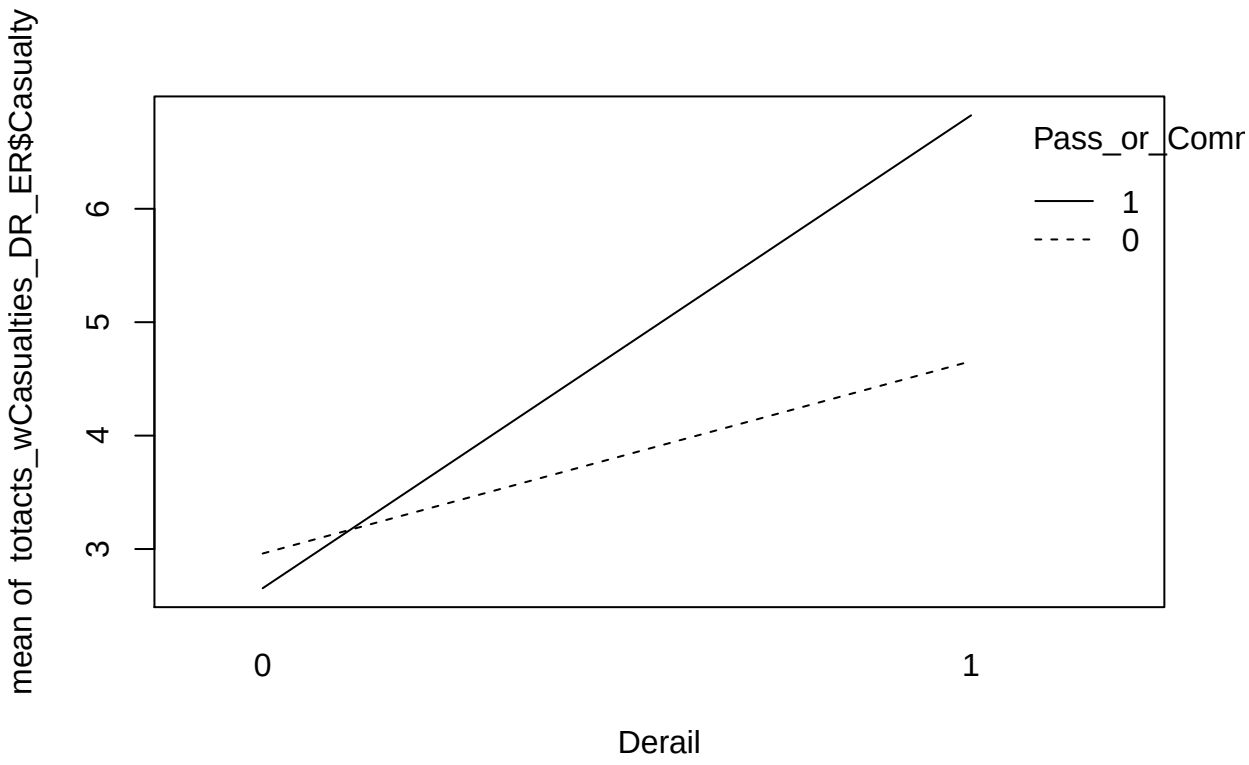

```
#### Derailment Plots
  # Interaction of highway rail and day
interaction.plot(Derail, day, totacts_wCasualties_DR_ER$Casualty)
```



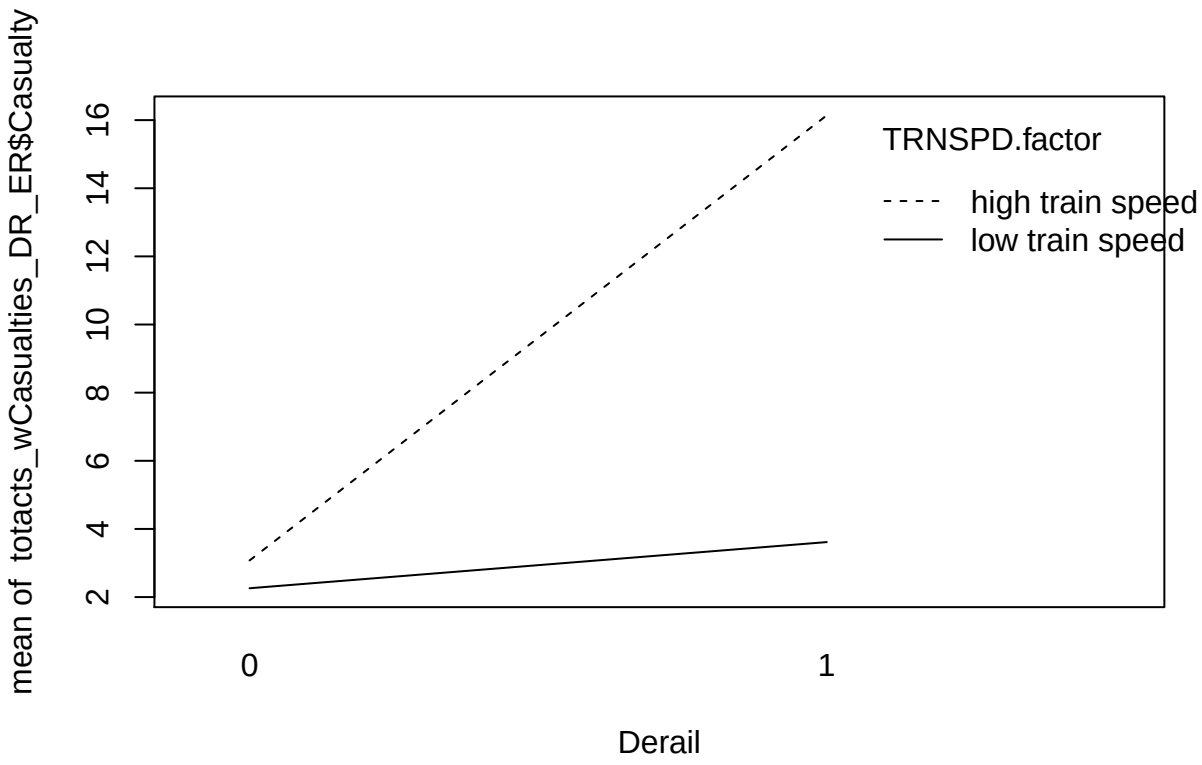

```
  # Interaction of highway rail and clear
interaction.plot(Derail, clear, totacts_wCasualties_DR_ER$Casualty)
```



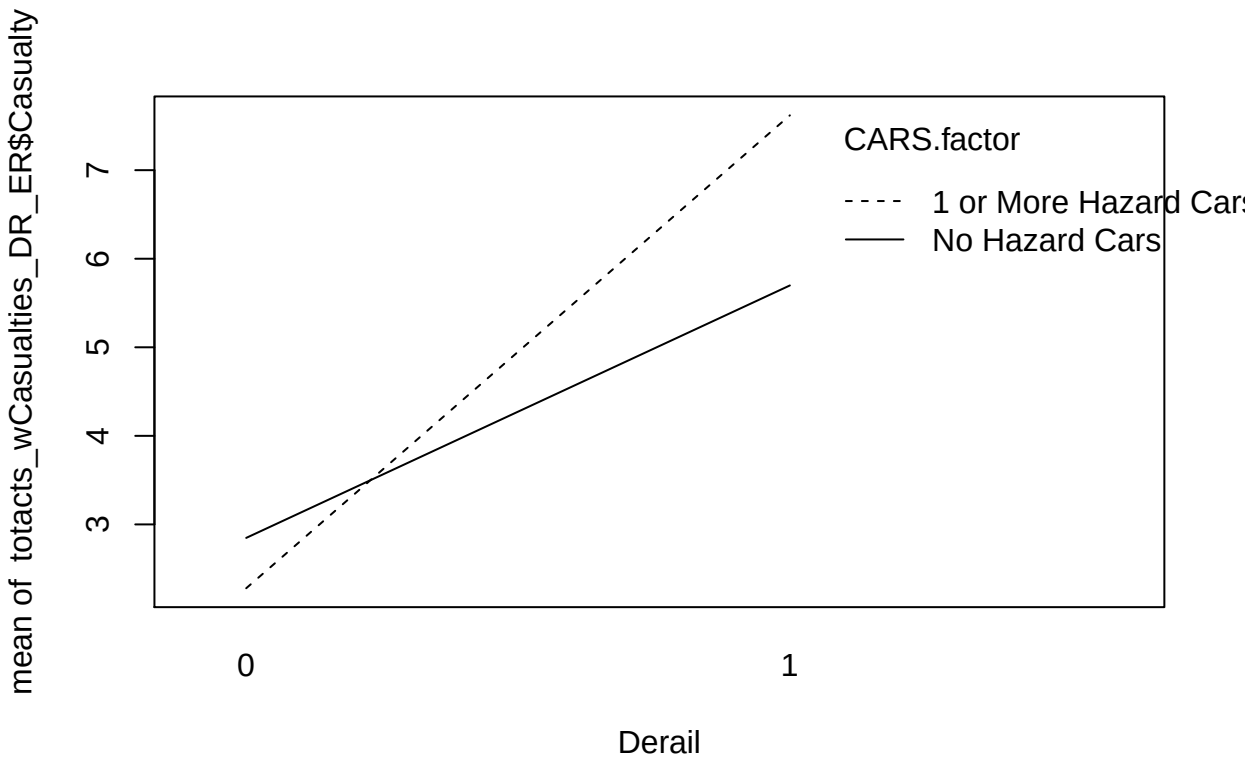

```
  # Interaction of highway rail and Pass_or_Comm
interaction.plot(Derail, Pass_or_Comm, totacts_wCasualties_DR_ER$Casualty)
```



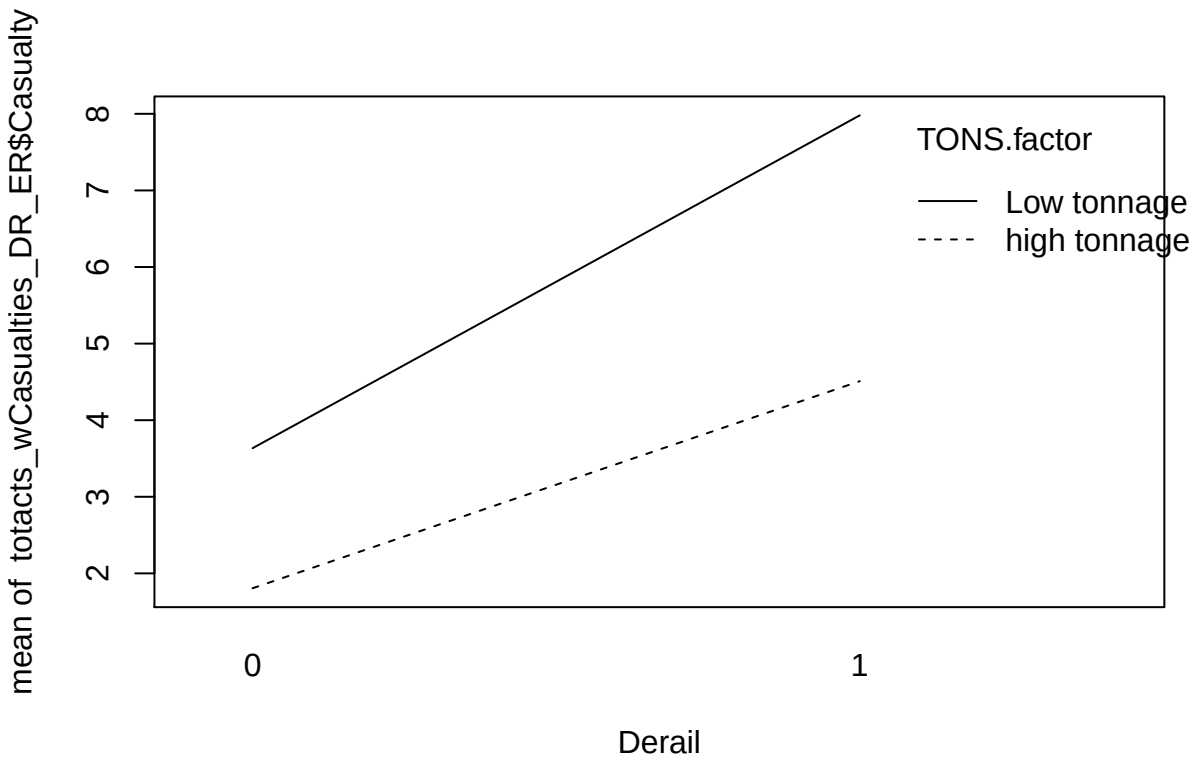

```
  # Interaction of highway rail and TRNSPD.factor
interaction.plot(Derail, TRNSPD.factor, totacts_wCasualties_DR_ER$Casualty)
```



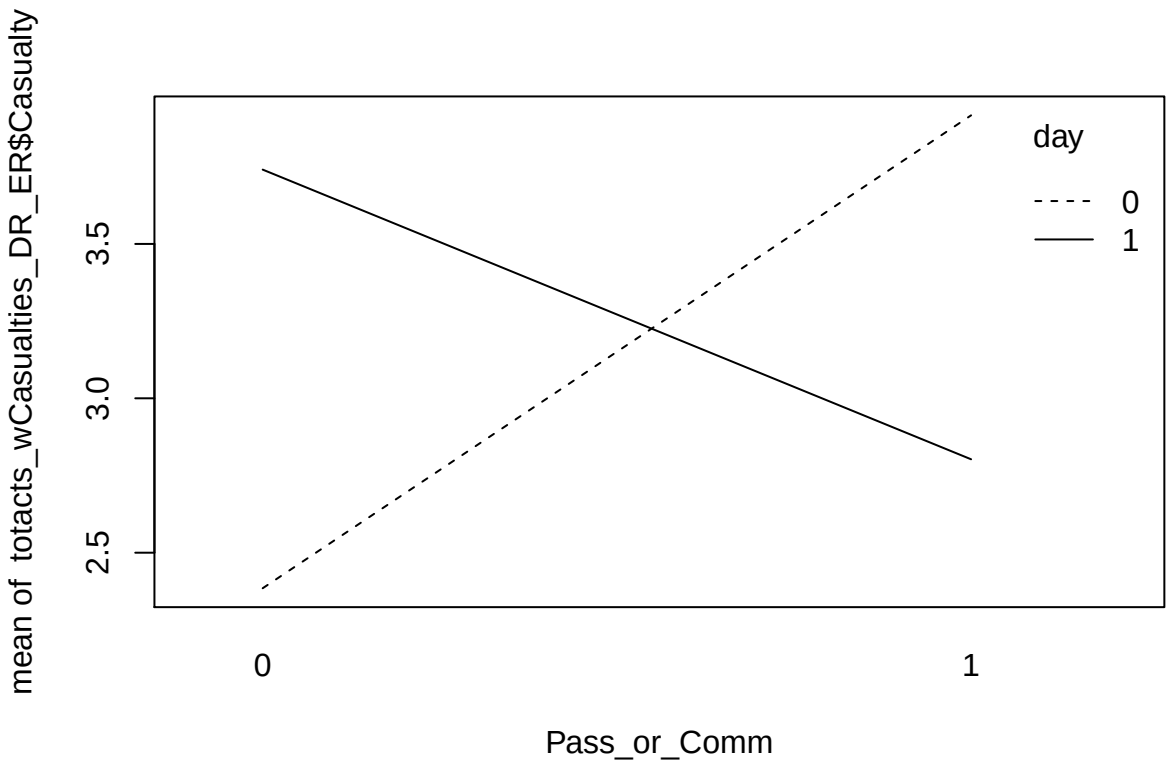

```
  # Interaction of highway rail and CARS.factor
interaction.plot(Derail, CARS.factor, totacts_wCasualties_DR_ER$Casualty)
```



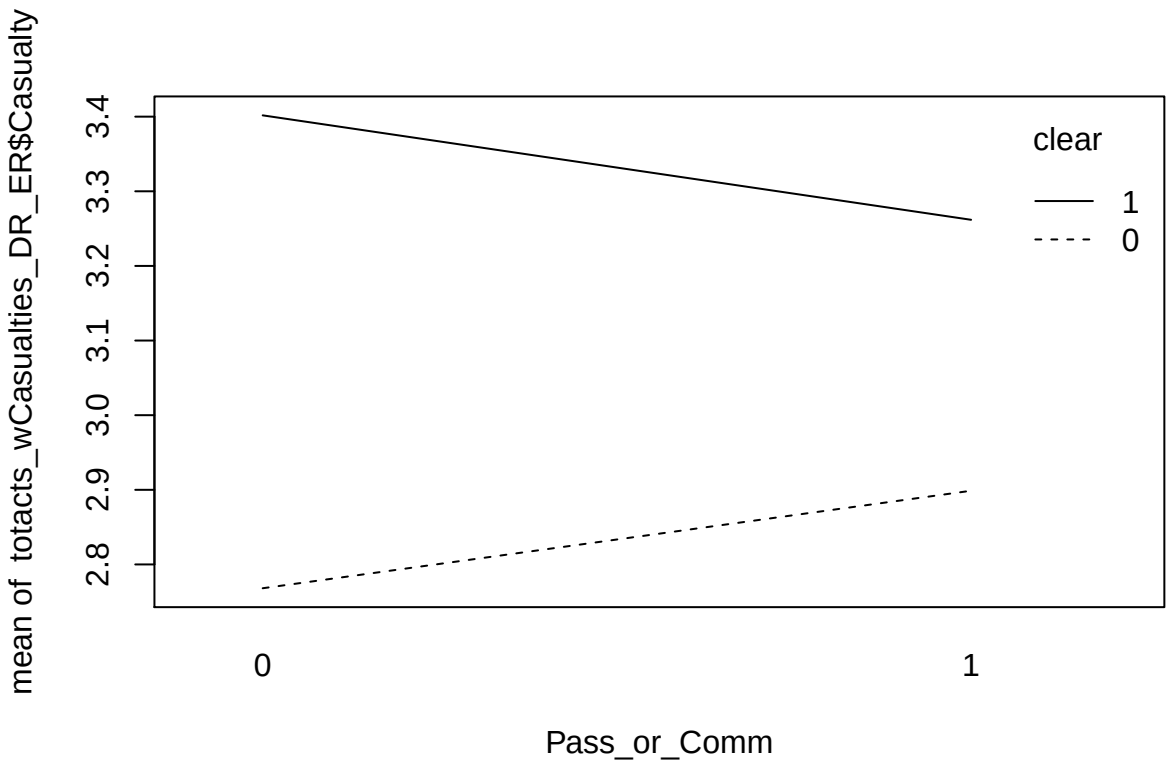

```
  # Interaction of highway rail and TONS.factor
interaction.plot(Derail, TONS.factor, totacts_wCasualties_DR_ER$Casualty)
```



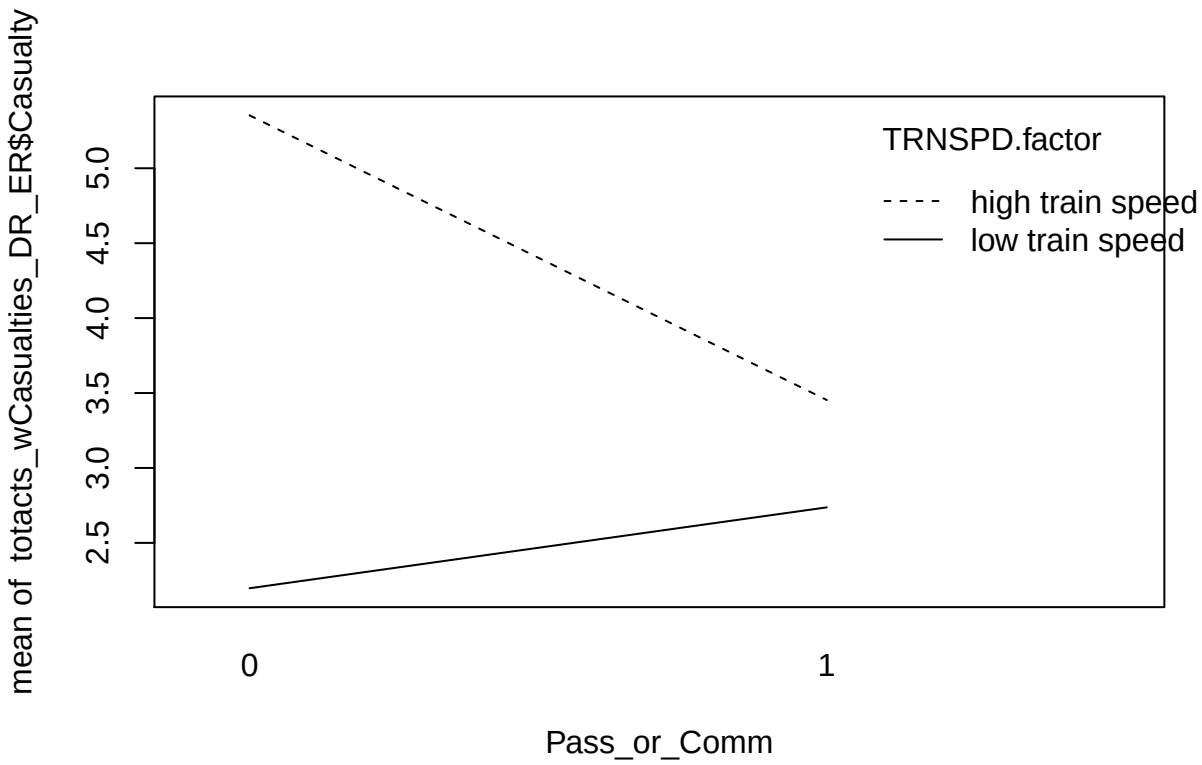

```
#### Passenger or Commuter
  # Interaction of Passenger or Commuter and day
interaction.plot(Pass_or_Comm, day, totacts_wCasualties_DR_ER$Casualty)
```



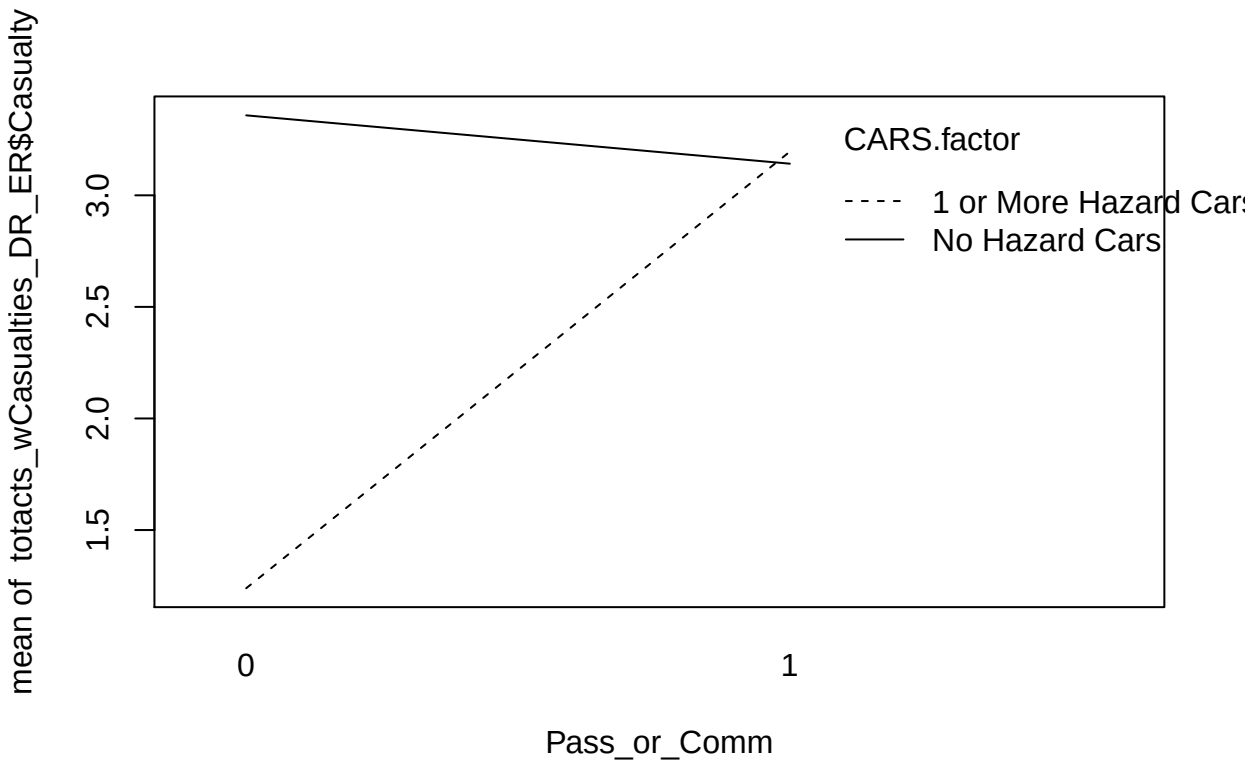

```
  # Interaction of Passenger or Commuter and clear
interaction.plot(Pass_or_Comm, clear, totacts_wCasualties_DR_ER$Casualty)
```



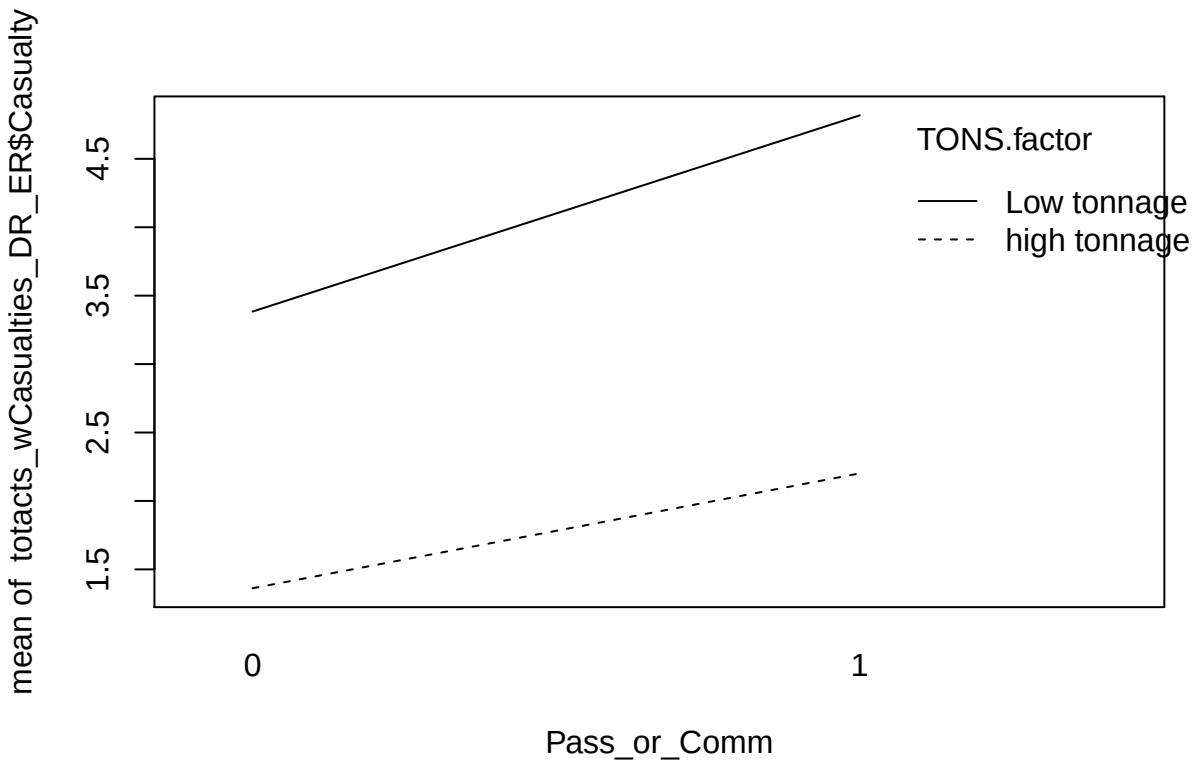

```
  # Interaction of Passenger or Commuter and TRNSPD.factor
interaction.plot(Pass_or_Comm, TRNSPD.factor, totacts_wCasualties_DR_ER$Casualty)
```




```
  # Interaction of Passenger or Commuter and CARS.factor
interaction.plot(Pass_or_Comm, CARS.factor, totacts_wCasualties_DR_ER$Casualty)
```




```
  # Interaction of Passenger or Commuter and TONS.factor
interaction.plot(Pass_or_Comm, TONS.factor, totacts_wCasualties_DR_ER$Casualty)
```




```
print("Looking at highway-rail interactions, it seems like non-highway rail accidents are worse on avera
```

```
## [1] "Looking at highway-rail interactions, it seems like non-highway rail accidents are worse on ave
```

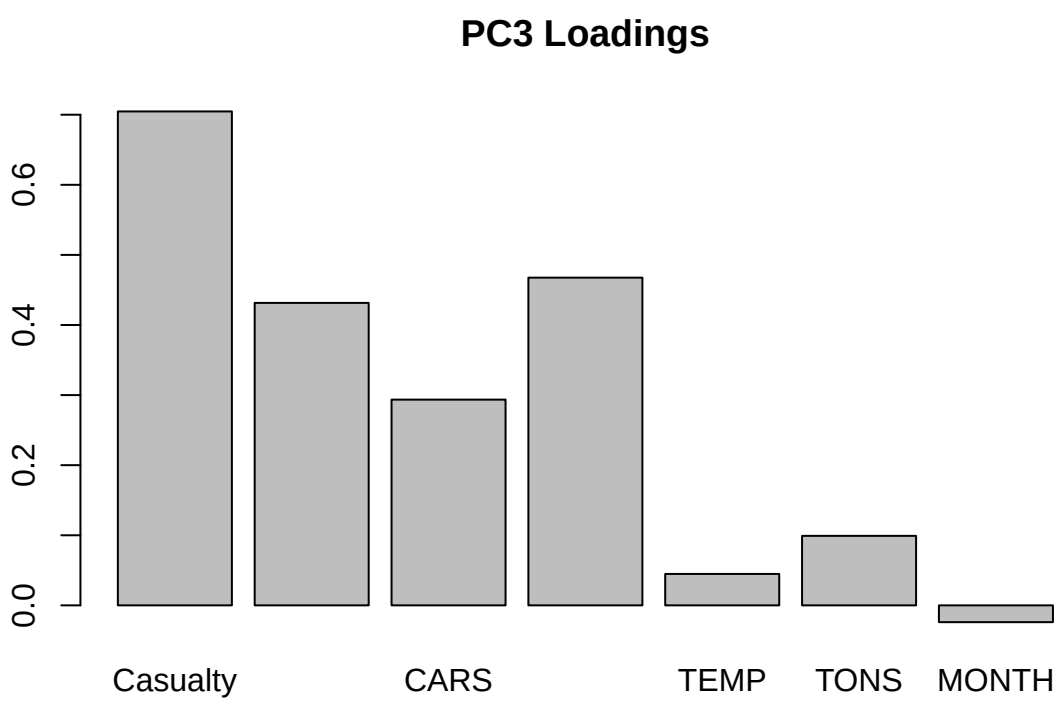
```
print("Looking at derailment interactions, low tonnage accidents are worse on average which is probably
```

```
## [1] "Looking at derailment interactions, low tonnage accidents are worse on average which is probabl
```

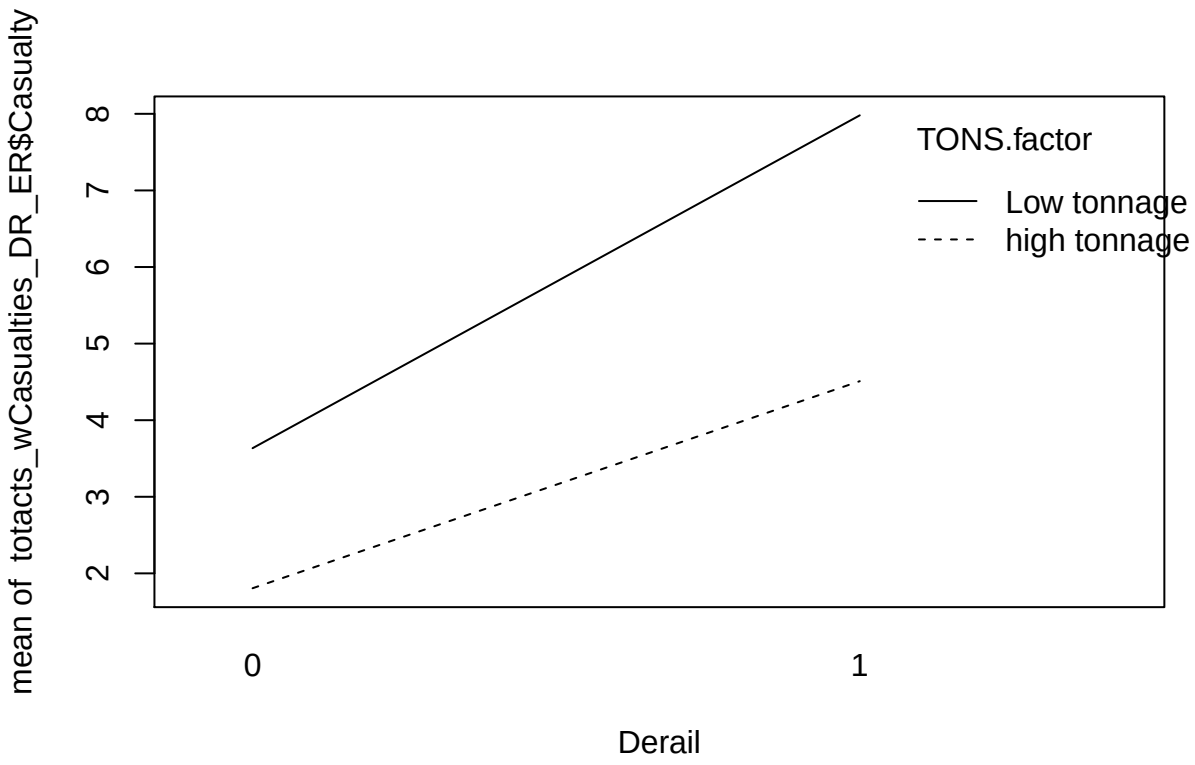
```
print("Looking at passenger or commuter train type accidents, lower tonnage is associated with more sev
```

```
## [1] "Looking at passenger or commuter train type accidents, lower tonnage is associated with more se
```

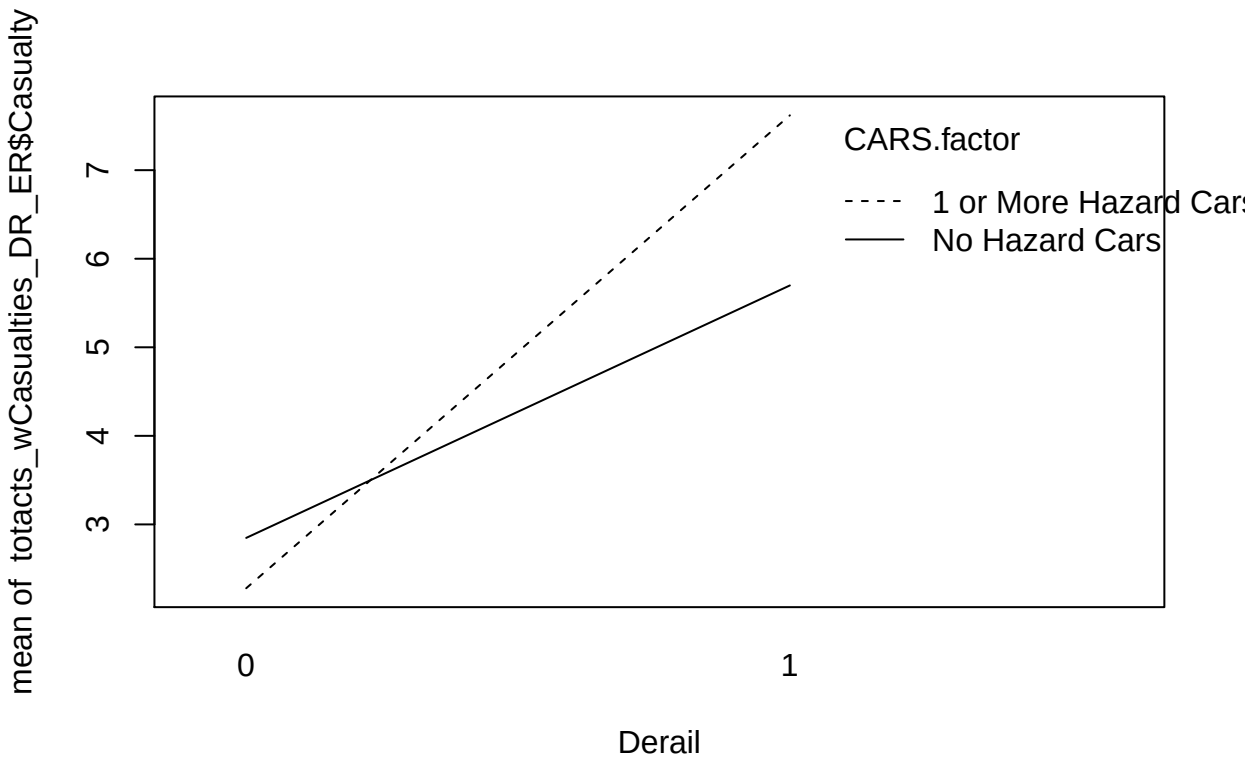
```
###### Most important plots pasted for convenience:
  # 3rd PC Loadings
barplot(totacts_wCasualties.pca$loadings[,3], main='PC3 Loadings')
```



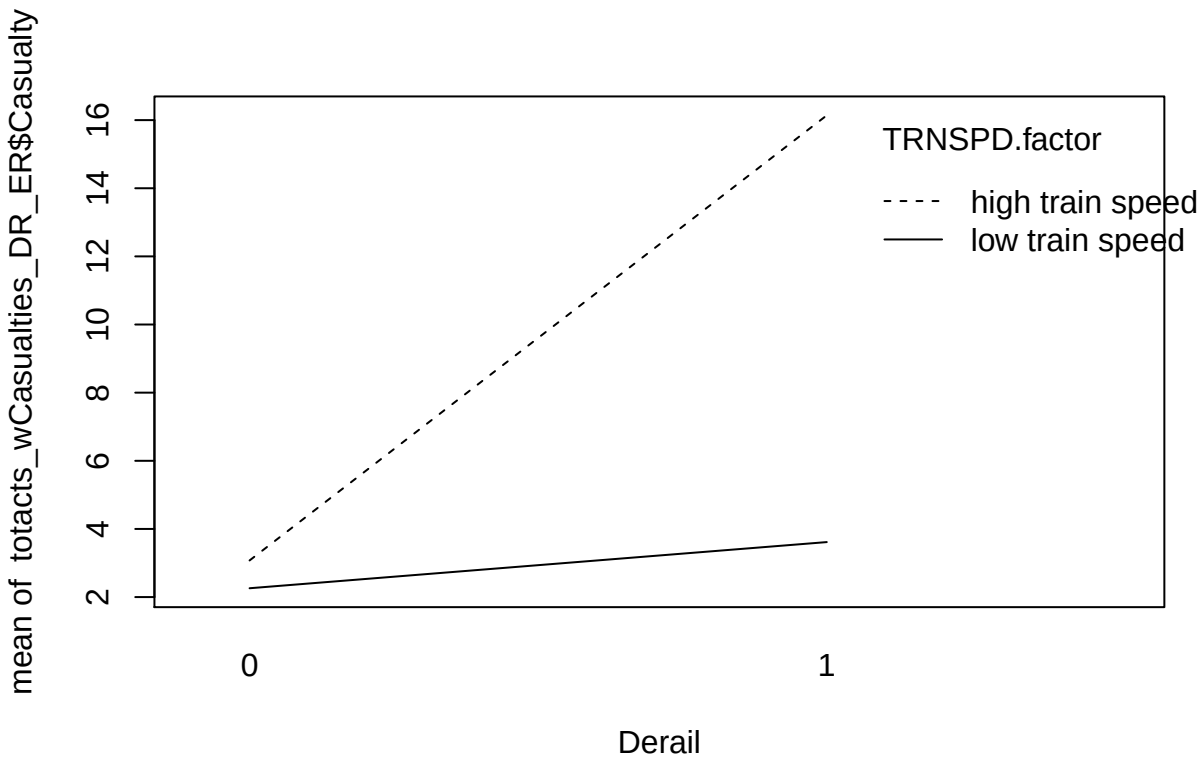

```
  # Interaction of highway rail and TONS.factor
interaction.plot(Derail, TONS.factor, totacts_wCasualties_DR_ER$Casualty)
```



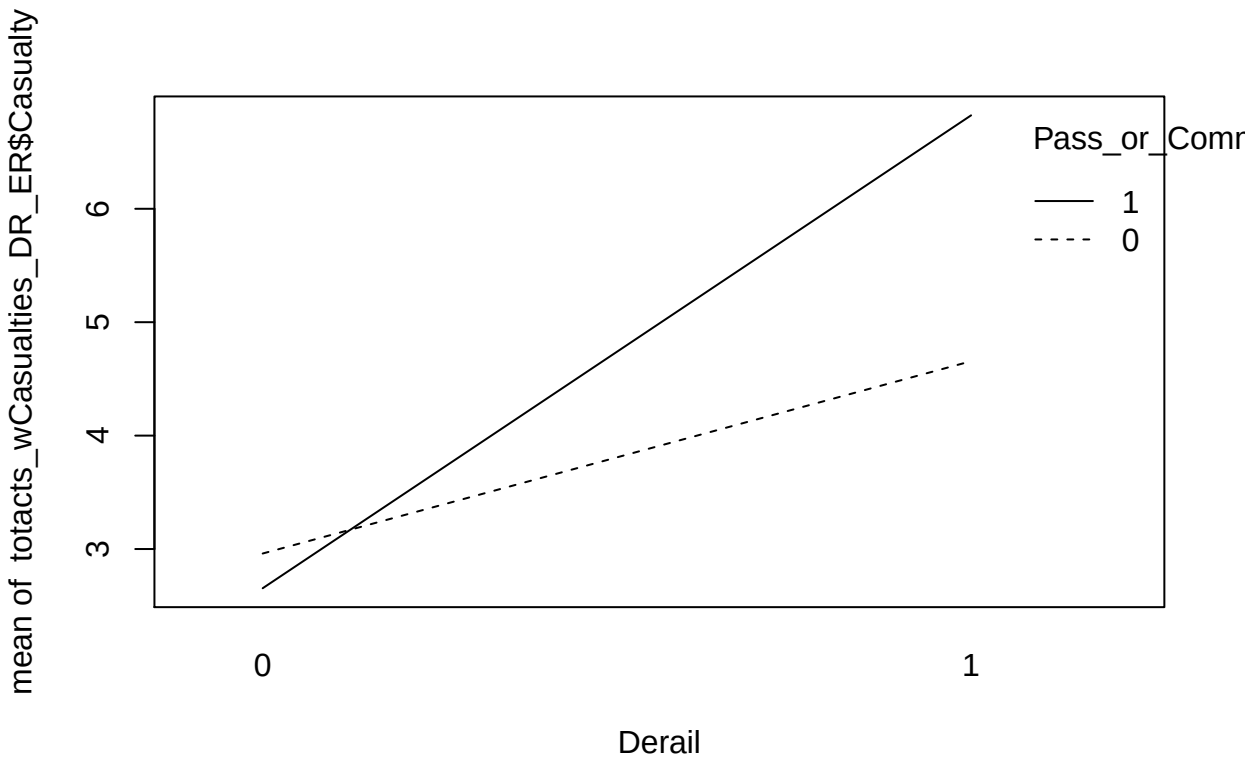

```
  # Interaction of highway rail and CARS.factor
interaction.plot(Derail, CARS.factor, totacts_wCasualties_DR_ER$Casualty)
```



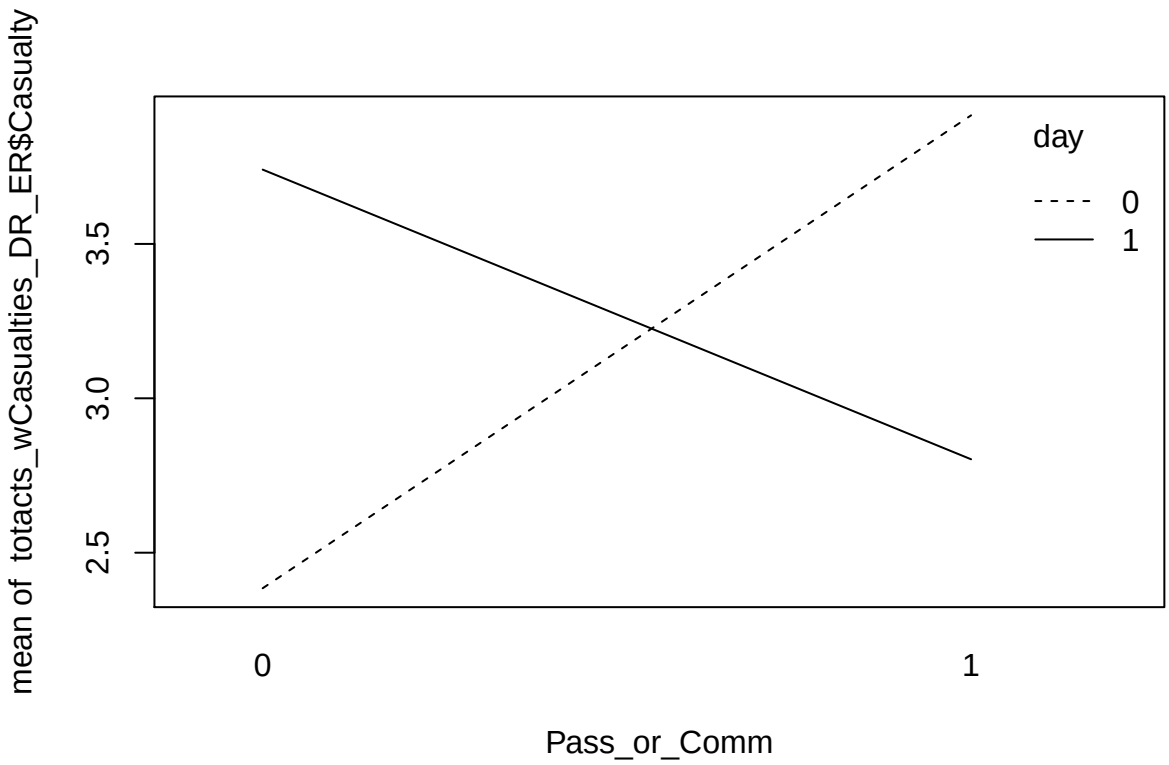

```
  # Interaction of highway rail and TRNSPD.factor
interaction.plot(Derail, TRNSPD.factor, totacts_wCasualties_DR_ER$Casualty)
```



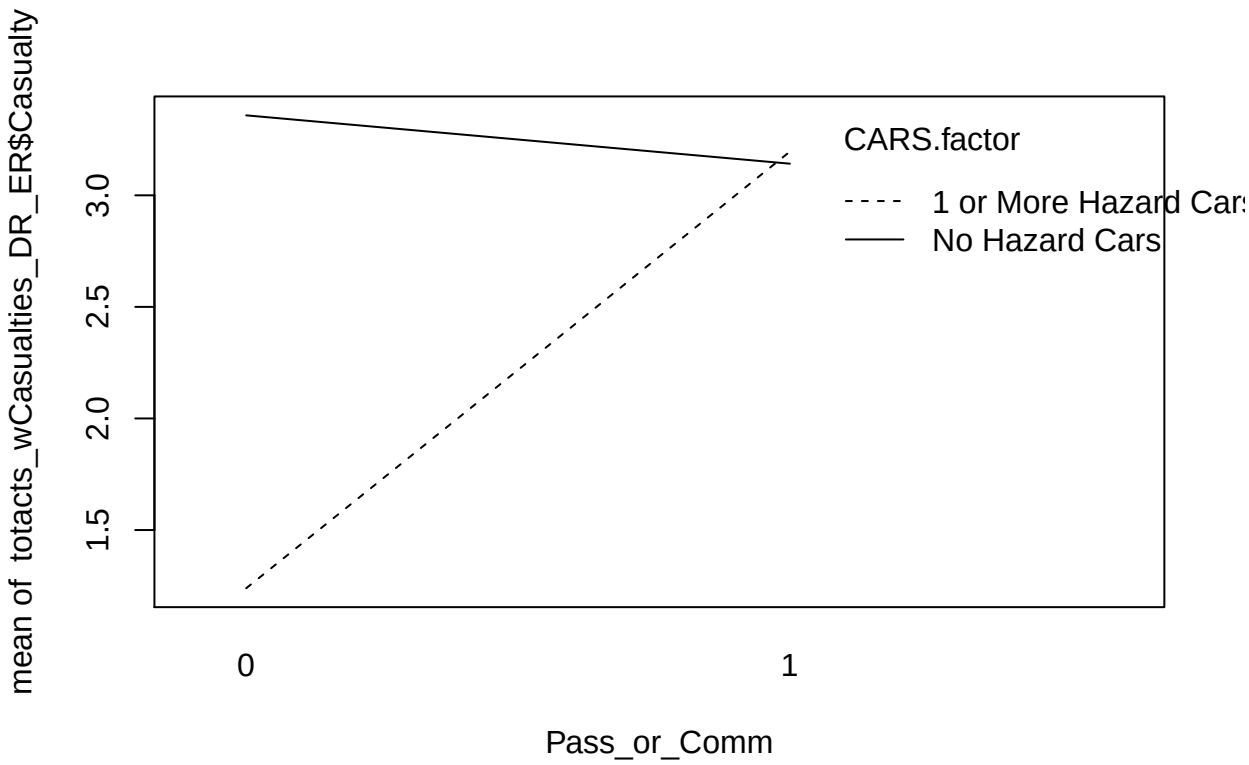

```
  # Interaction of highway rail and Pass_or_Comm
interaction.plot(Derail, Pass_or_Comm, totacts_wCasualties_DR_ER$Casualty)
```



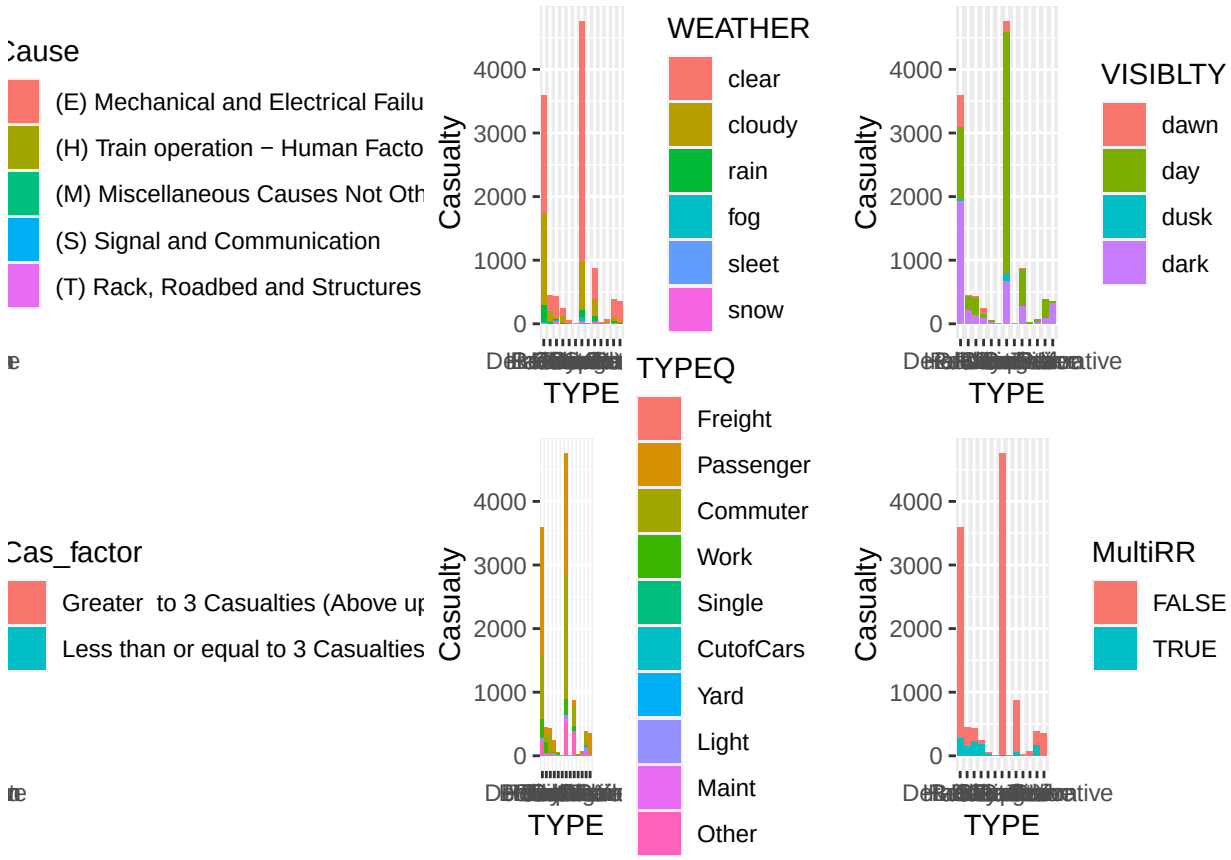

```
  # Interaction of Passenger or Commuter and day
interaction.plot(Pass_or_Comm, day, totacts_wCasualties_DR_ER$Casualty)
```



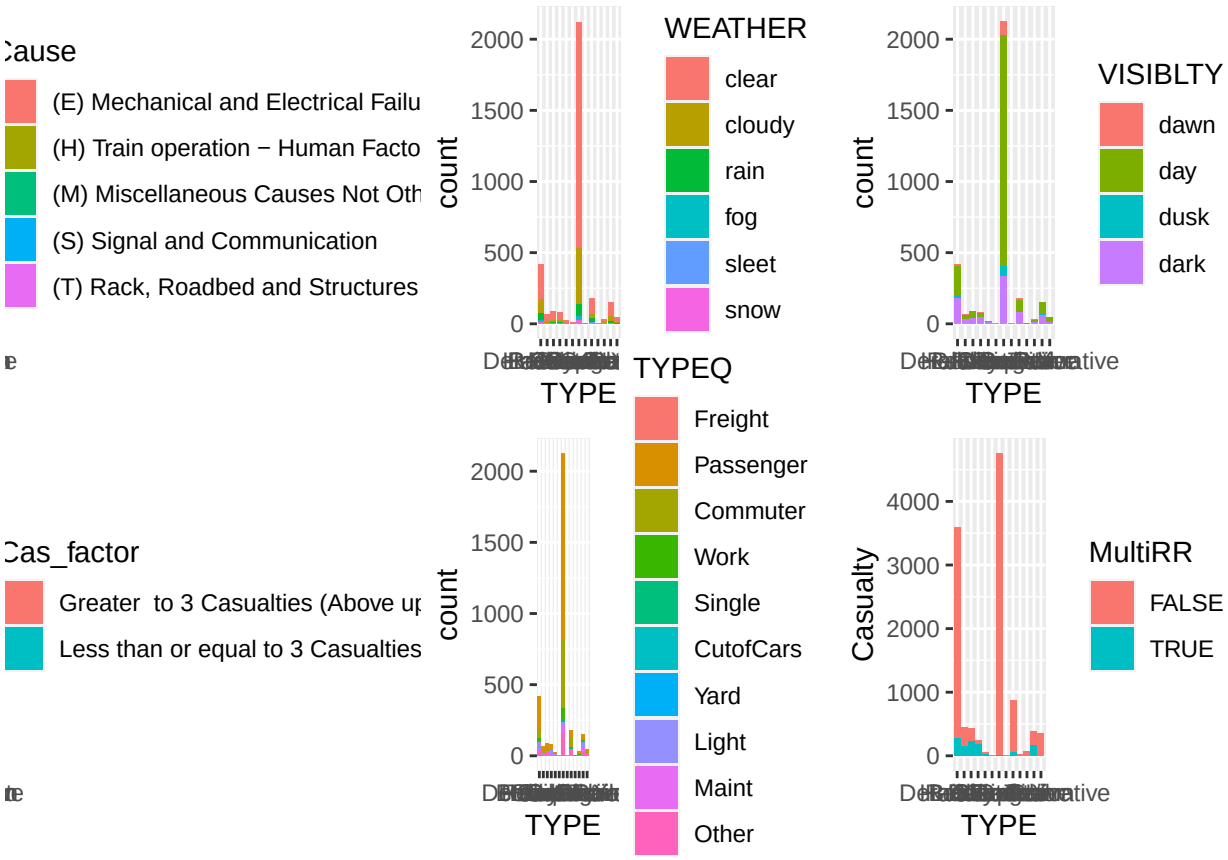

```
  # Interaction of Passenger or Commuter and CARS.factor
interaction.plot(Pass_or_Comm, CARS.factor, totacts_wCasualties_DR_ER$Casualty)
```




```
ggarrange(plt_1, plt_2, plt_3, plt_4, plt_5, plt_6, nrow = 2, ncol = 3)
```




```
ggarrange(plt_7, plt_8, plt_9, plt_10, plt_11, plt_12, nrow = 2, ncol = 3)
```




```
############### Playing Around
```

Hypothesis formation:

Hypothesis 1: H_0 : There is no relationship or an inverse relationship between derailment type accidents with passenger or commuter cars and accident severity relative to other types of accidents with other types of cars. H_1 : There is a positive relationship between derailment type accidents with passenger or commuter cars and accident severity relative to other types of accidents with other types of cars.

Hypothesis 2: H_0 : There is no interaction between derailment type accidents involving passenger or commuter cars and the number of hazard cars involved and train speed affecting accident severity. H_1 : There is an interaction between derailment type accidents involving passenger or commuter cars and the number of hazard cars involved and train speed affecting accident severity.