615 HW4

2024-09-25

###a Read in the data for all the years from 1985 to 2023.

```
library(data.table)
years <- 1985:2023
file_root <- "https://www.ndbc.noaa.gov/view_text_file.php?filename=44013h"
tail <- ".txt.gz&dir=data/historical/stdmet/"
all_data <- list()
for (year in years) {
   path <- paste0(file_root, year, tail)
   header <- scan(path, what = 'character', nlines = 1)
   skip_lines <- ifelse(year < 2007, 1, 2)
   buoy_data <- fread(path, header = FALSE, skip = skip_lines, fill = TRUE)
if (ncol(buoy_data) == length(header)) {
      colnames(buoy_data) <- header
} else {
      warning(paste("Data for year", year, "has inconsistent number of columns. Skipping header assignment."))
}
all_data[[as.character(year)]] <- buoy_data
}
```

```
## Warning in fread(path, header = FALSE, skip = skip_lines, fill = TRUE): Stopped
## early on line 5114. Expected 16 fields but found 17. Consider fill=17 or even
## more based on your knowledge of the input file. Use fill=Inf for reading the
## whole file for detecting the number of fields. First discarded non-empty line:
## <<2000 08 01 00 78 4.3 5.1 0.58 8.33 5.36 999 1022.9 17.3 17.5 15.0 99.0
## 99.00>>
```

```
## Warning: Data for year 2000 has inconsistent number of columns. Skipping header ## assignment.
```

```
lapply(names(all_data), function(year) {
  cat("\nYear:", year, "\n")
  print(all_data[[year]])
})
```

```
##
## Year: 1985
              MM
                  DD
                       hh
                             WD WSPD GST WVHT
                                               DPD
                                                    APD
                                                         MWD
                                                               BAR
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num> <num> 
                                     5
                                                    99
## 1:
         85
              1 1
                         0
                             60
                                            99
                                                99
                                                         999 1030, 3
##
                             80
          85
                         1
                                            99
                                                 99
                                                     99
                                                         999 1030.0
## 3:
                            100
                                                         999 1030.1
         85
                                            99
                                                99
                                                     99
              1
                   1
                         2
                                  4
                                       5
                            100
                                     5
                                                         999 1029. 4
## 4: 85
             1 1 3
                                  4
                                           99
                                                99
                                                    99
##
    5:
         85
                            110
                                     5
                                           99
                                                99
                                                     99
                                                         999 1028.6
              1
                  1
                      4
                                  4
##
## 8715: 85
             12 31 19
                            200
                                 10 13
                                           99
                                                99
                                                     99
                                                         999 1008 5
## 8716:
         85
              12
                   31
                       20
                            200
                                  11
                                      15
                                           99
                                                99
                                                     99
                                                         999 1008.0
                   31 21
## 8717: 85 12
                                  10 12 99
                            200
                                                99
                                                     99
                                                         999 1008.7
## 8718: 85 12 31 22
## 8719: 85 12 31 23
                                                         999 1009.0
                            210
                                9 12 99 99
                                                     99
                            210
                                  8
                                      10
                                           99
                                                99
                                                     99
                                                         999 1009.1
       ATMP WTMP DEWP VIS
##
      <num> <num> <num> <num> <num>
## 1: 4.7
             6.7 999
                        99
## 2: 5.1
             6.7
                  999
##
    3: 5.6 6.6
                  999
                        99
##
    4: 5.8 6.7
                  999
                        99
## 5: 5.8 6.7 999
##
## 8715: 7.5 4.6 999
                        99
## 8716: 7.9 4.7 999
## 8717:
        7.4 4.8
                  999
                        99
## 8718: 7.2 4.9 999
                        99
## 8719: 6.7 4.4 999
                        99
## Year: 1986
##
         YY
              MM DD
                       hh
                             WD WSPD GST WVHT DPD APD MWD
                                                              BAR
##
       <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
  1: 86
##
             1 1 0 210
                                9 11 99.0 99.0 99.0 999 1009.2
## 2: 86
               1
                   1
                        1
                            210
                                  9
                                      10 99.0 99.0 99.0
                                                         999 1009.3
## 3: 86 1 1 2
## 4: 86 1 1 3
                            220
                                  8
                                      10 99.0 99.0 99.0
                            220
                                      8 99.0 99.0 99.0
                                                         999 1009.3
                                  6
## 5: 86 1 1 4 210
                                 6
                                     8 99.0 99.0 99.0
                                                         999 1009, 0
##
             12 31 19
## 8164: 86
                            320
                                 8 10 3.0 11.1 8.3
                                                         999 1017.5
                                  8 9 2.9 11.1 8.2
9 11 2.7 11.1 8.4
             12 31 20
12 31 21
## 8165: 86
                            350
                                                         999 1018.8
## 8166:
         86
                            320
                                                         999 1019.6
                   31 22
                            320 8 10 2.7 11.1 8.6
## 8167: 86
             12
                                                         999 1021.0
                            290 7 8 2.9 11.1 8.7 999 1022.5
## 8168: 86
             12 31
                       23
##
        ATMP WTMP DEWP VIS
       <num> <num> <num> <num>
## 1: 5.8
## 2: 4.7
    1: 5.8 4.3 999
                        99
             4.3
                  999
                        99
## 3: 4.0 4.3 999
## 4: 3.9 4.3 999
## 5: 3.9 4.3 999
                        99
                        99
## ---
## 8164:
        4.0 6.2
                  999
                        99
## 8165: 4.3
             6. 2
                  999
                        99
## 8166: 4.4 5.9 999
                        99
## 8167: 3.9 5.9 999
## 8168: 3.2 5.9 999
                        99
                        99
##
## Year: 1987
             MM DD hh
                            WD WSPD GST WVHT DPD APD MWD BAR
##
         YY
##
       ##
              1 1 0
                            290
                                 8.0 10.0
                                           2.7 11.1
                                                    8.6
## 2: 87
                                 7.0 8.0
                                           2.4 10.0
                                                         999 1024.3
               1
                   1
                        1
                            290
                                                    8.0
  3: 87 1 1 2 290 6.0 8.0 2.5 11.1
4: 87 1 1 3 300 6.0 7.0 2.6 11.1
5: 87 1 1 4 290 5.0 6.0 2.7 12.5
## 3: 87
                                                    8. 3
                                                         999 1023.8
##
                                                    8.6
                                                         999 1024.1
##
                                                    8.7
                                                         999 1025, 2
## ---
## 7598:
              12
                   31 19
                            177
                                 8.6 10.1
                                           0.4 11.1
                                                    4.7
                                                         999 1023.4
## 7599: 87 12 31 20
                            195
                                7.9
                                     9.3
                                           0.5 11.1 4.3
                                                         999 1023.6
## 7600: 87
## 7601: 87
                   31 21
31 22
                                                         999 1022.3
             12
                            193
                                 7.6
                                     9.0
                                           0.4 10.0 4.1
              12
                            223
                                6.7
                                     8.0
                                           0.4 10.0
                                                    4.1
                                                         999 1022, 1
## 7602:
             12
                 31
                            225 5.0 6.0 0.3 12.5 4.4 999 1021.3
##
       ATMP WTMP DEWP
                       VIS
##
       <num> <num> <num> <num>
  1: 2.8 5.9 999
##
        2.0
             5.9
                  999
                        99
    2:
±±
    3:
        1.6
             5. 9
                  999
                        99
## 4: 1.3
             6.0 999
                        99
## 5: 1.0
## ---
             5.9 999
                        99
## 7598: 0.5 5.1 999
                        99
## 7599:
        0.1
             5.1
                  999
                        99
## 7600: 0.9
                  999
             5. 1
                        99
## 7601: 1.6 5.1 999
                        99
## 7602:
        1.6
             5.1
                  999
                        99
```

```
##
## Year: 1988
             MM DD hh WD WSPD GST WVHT DPD APD MWD
##
       YY
                                                           BAR
##
       ## 1:
            1 1 191 5.7 6.7 0.3 14.3 4.7
                                                       999 1020.1
##
    2:
         88
                           182
                               8.0
                                   9.3
                                        0.4 3.6
                                                       999 1018.9
                                                  3.8
       88
## 3:
              1
                  1
                       3
                          196
                              8.1 10.3 0.4 3.0 3.5 999 1019.0
## 4: 88
                       4
                          193 7.8 8.7 0.4 2.9 3.4 999 1019.0
##
   5:
        88
                  1
                       5
                          182
                              6.9 8.9 0.3 2.6 3.7 999 1018.9
## ---
## 8067: 88
             12 31 19
                          259 8.8 11.5 0.4 3.3 3.4
                                                      999 1013, 9
## 8068:
        88
             12
                  31
                      20
                           267
                               8.5 10.2
                                        0.5
                                             3.6
                                                  3.5
                                                       999 1014.7
                     21
             12
## 8069: 88
                           277 9.7 12.2 0.6 3.4
                                                       999 1015, 5
                  31
                                                 3. 5
            12 31 22
12 31 23
## 8070: 88
                           291 9.6 12.6 0.4 3.6 3.5 999 1016.4
## 8071:
        88
                           284 7.1 8.8 0.3 3.1 3.3 999 1017.9
## ATMP WTMP DEWP VIS
##
     <num> <num> <num> <num> <num>
##
    1: 3.9
            5.1 999
                      99
## 2: 4.6 5.1 999
## 3: 4.7 5.1 999
## 4: 4.4 5.1 999
                      99
             5.1
                      99
## 5: 4.3 5.1 999
## ---
## 8067: 4.4 4.7
                999
                       99
## 8068: 4.7 4.7 999
## 8069: 4.3 4.7
## 8070: 3.6 4.7
                 999
                       99
                 999
                       99
## 8071: 3.3 4.7 999
##
## Year: 1989
##
        YY
             MM DD hh
                          WD WSPD GST WVHT DPD APD MWD BAR
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
## 1: 89
             1 1 0 309 8.5 9.8 0.2 2.9 3.3 999 1018.6
## 2:
         89
                           329
                               9.0 11.2
                                        0.3 2.9 3.2
                                                       999 1020, 1
##
    3:
        89
                   1
                           326
                               7.4 9.9
                                        0.3
                                             3.1
                                                 3.4
                                                       999 1022.3
## 4: 89
             1 1 3
                          340 8.2 11.4 0.2 3.0 3.5 999 1022.5
## 5: 89
            1 1 4
                          349 9.6 11.4 0.3 3.2 3.4 999 1022.5
## ---
## 7929: 89
            12 31 19
                          158 7.1 8.2 1.0 6.2
                                                      999 1013.9
                                                 5.3
## 7930: 89
            12 31 20
                          163 7.0 8.2 1.1 7.1
                                                 5.4
                                                       999 1012, 7
## 7931:
         89
             12
                  31
                      21
                           160
                               7.3
                                   8.2
                                        1.0
                                            6.7
                                                  5.5
                                                       999 1011.4
## 7932: 89
                  31 22
                              7.3 8.1 1.0 7.1 5.6 999 1009.6
            12
                          150
                     23
## 7933: 89
            12 31
                          159 7.5 8.4 1.0 7.1 5.6 999 1008.0
##
       ATMP WTMP DEWP
                     VIS
      <num> <num> <num> <num> <num>
##
    1: 2.8 4.7 999
2: 1.7 4.7 999
                      99
                      99
## 3: 1.1 4.7 999
## 4: 0.2 4.7 999
## 5: -0.7 4.7 999
                      99
                      99
## ---
## 7929: 3.4 2.9 999
## 7930: 3.2 2.9 999
                      99
                       99
## 7931: 3.7 2.9
                 999
## 7932: 4.4 3.2 999
## 7933: 3.9 3.2 999
                       99
                       99
##
## Year: 1990
            MM DD hh
##
                          WD WSPD GST WVHT DPD APD MWD
        YY
                                                          BAR
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
##
    1: 90
             1 1 0
                          149
                              9.5 10.8
                                        1.1 7.1
                                                 5. 5
## 2: 90
                          149
                               9.9 11.6
                                        1.2 7.1
                                                 5.5
                                                       999 1003.1
              1
                   1
                       1
## 3: 90
             1 1 2
                          182 7.8 9.7 1.1 7.1 5.4
                                                       999 1001.8
##
        90
                           200
                               9.5 10.9
                                        1.0
                                            7.1
                                                       999 1000.5
    4:
              1
                  1
                       3
                                                 5.4
             1 1 4
## 5: 90
                               9.9 11.8 1.1 7.1 5.5
                          199
                                                      999 999.6
## ---
## 8699:
        90
             12
                  31 19
                           337
                               9.6 12.4 0.7 10.0
                                                 4.4
                                                       999 1023.4
## 8700: 90 12
                  31 20
                          322 10.3 12.8 0.8 6.2
                                                 4.7
                                                       999 1024.9
                          325 8.4 10.9 0.7 11.1 4.9
            12
                  31 21
## 8701: 90
                                                       999 1026, 1
## 8702:
        90
             12
                  31
                      22
                           327
                               9.7 12.4 0.7
                                            6.2
                                                 4.9
                                                       999 1027.2
## 8703: 90
            12 31 23
                           326 9.0 12.0 0.7 7.1 5.2 999 1028.6
       ATMP WTMP DEWP VIS
##
##
       <num> <num> <num> <num>
## 1: 4.3 3.3 999
## 2: 5.4
## 3: 7.0
             3.3
                 999
                       99
             3.2
                 999
                       99
## 4: 8.8 3.2 999
##
   5: 8.6 3.2 999
                      99
## ---
## 8699: 0.0 6.4
                 999
## 8700: -0.5
            6.4
                 999
                       99
## 8701: -1.0
            6.4
                 999
                       99
## 8702: -2.1 6.4 999
                       99
## 8703: -2.6 6.4 999
```

```
±±
## Year: 1991
             MM DD hh WD WSPD GST WVHT DPD APD MWD
##
       YY
                                                            BAR
##
       ## 1:
            1 1 0 322 10.6 12.8 0.8 7.7 5.0
                                                        999 1029.7
##
    2:
         91
                           343
                               8.7 10.9
                                          0.8
                                              5.9
                                                        999 1031, 1
                   1
                        1
                                                   5.1
## 3:
                                7.3 10.7 0.7 7.1
        91
              1
                   1
                        2
                           336
                                                   5. 0 999 1031. 7
## 4: 91
                           328 9.1 11.2 0.7 7.1 5.2 999 1031.8
                 1 3
##
   5:
                   1
                        4
                           334 10.6 12.3 0.8 6.7 4.7 999 1032.6
## ---
## 8726: 91
             12 31 19
                           285 3.4 5.0 2.0 10.0 7.8
                                                        999 1035.0
## 8727:
              12
                  31
                       20
                           266
                                3.8
                                    4.8
                                          1.9 10.0
                                                   7.9
                                                        999 1034.8
         91
             12
                      21
## 8728: 91
                           269 4.4 5.5 1.7 10.0
                                                        999 1034, 5
                  31
                                                   7.6
## 8729: 91
## 8730: 91
            12 31 22
12 31 23
                           263 4.1 5.4 1.9 9.1 7.9 999 1034.4
254 4.5 5.7 1.6 8.3 7.6 999 1034.5
       ATMP WTMP DEWP VIS
##
     <num> <num> <num> <num> <num>
##
    1: -3.0 6.4 999
                       99
## 2: -3.4 6.4 999
## 3: -4.1 6.4 999
## 4: -4.3 6.4 999
                       99
                       99
## 5: -4.4 6.4 999
## ---
## 8726: 0.8 5.5
                  999
                        99
## 8727: 1.6 5.5 999
## 8728: 2.0
## 8729: 2.1
             5.5
                 999
                       99
             5.6
                 999
                       99
## 8730: 2.3 5.6 999
##
## Year: 1992
##
        YY
             MM DD hh
                           WD WSPD GST WVHT DPD APD MWD
                                                            BAR
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
## 1: 92
                           249 5.9 7.0 1.2 7.7 7.3 999 1034.4
             1 1 1
                                                        999 1034.3
## 2: 92
                            260
                                5.6
                                    6.3
                                          1.1 7.7 7.5
                        2
##
    3:
         92
                   1
                        3
                            269
                                5.0
                                     5.9
                                          1.1 11.1
                                                   7.6
             1 1 4
## 4: 92
                           281 5.2 6.4 1.0 10.0 8.1 999 1034.1
## 5: 92 1 1 5
                           280 5.4 6.4 1.0 10.0 8.1 999 1033.5
## ---
## 8732: 92
            12 31 19
                           264 3.6 4.3 1.3 8.3 7.5
                                                        999 1007.0
## 8733: 92 12 31 20
                           248 2.5 3.1 1.3 10.0 7.7
                                                        999 1006.3
## 8734:
         92
              12
                   31
                       21
                           229
                                6.7
                                     7.4
                                          1.1 10.0
                                                   7.2
                                                        999 1005.5
            12 31 22
## 8735: 92
                           236 8.8 9.8 1.0 10.0 7.4 999 1004.8
                      23
## 8736: 92
             12 31
                           252 5.6 6.8 1.0 10.0 7.5 999 1005.6
##
        ATMP WTMP DEWP VIS
      <num> <num> <num> <num> <num>
##
    1: 2.1 5.6 999
2: 1.7 5.6 999
                       99
                       99
## 3: 1.7 5.6 999
## 4: 1.7 5.6 999
## 5: 1.6 5.6 999
                       99
                       99
## ---
## 8732: 3.2 4.7 999
## 8733: 3.9 4.7 999
                       99
                       99
## 8734: 5.5 4.7 999
## 8735: 6.4 4.7
                  999
                        99
## 8736: 6.3 4.7 999
                       99
##
## Year: 1993
             MM DD hh
##
                           WD WSPD GST WVHT DPD APD MWD
        YY
                                                            BAR
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
##
    1: 93
              1 1 0
                           241
                                7.6 8.6
                                          0.9 10.0
                                                   7.4
## 2: 93
                           245
                                7.3
                                    8.2 0.8 10.0
                                                   7.7
                                                        999 1006.3
              1
                   1
                        1
## 3: 93
             1 1 2
                           243 8.1 8.9 0.8 10.0 8.0 999 1006.5
                 1 3
1 4
##
         93
                            261
                                7.7
                                    8.8
                                          0.7
                                                   7.9
                                                        999 1006.5
    4:
              1
                                              9.1
             1
## 5: 93
                               7.8 8.6 0.8 9.1
                           269
                                                   7.8 999 1007.0
## ---
## 8689:
        93
             12
                  31 19
                           228
                               9.7 12.1 0.8
                                             3.4
                                                   3.4 217 1018.0
                  31 20
## 8690: 93 12
                           233 10.1 12.9 0.8
                                              3.3
                                                   3.4
                                                        219 1018, 6
## 8691: 93
             12
                  31 21
31 22
                           255 10.8 14.4 0.9 3.4 3.4 241 1019.7
## 8692:
         93
             12
                  31
                           252
                               9.8 12.6 0.9 3.7
                                                   3.5
                                                        256 1020.7
## 8693: 93
            12 31 23
                           260 9.4 13.3 0.8 3.4 3.4 267 1021.7
       ATMP WTMP DEWP VIS
##
##
       \langle num \rangle \langle num \rangle \langle num \rangle \langle num \rangle
## 1: 6.7 4.7 999 99.0
##
    2: 7.1 4.7
3: 7.4 4.4
                  999
                      99.0
                  999 99.0
## 4: 7.8 4.4 999
##
    5: 7.9 4.4
                 999 99.0
##
## 8689: -1.2 5.6
                 999 21.7
## 8690: -0.8
             5.6
                  999 21.9
## 8691: -0.6
             5.6
                 999 24.1
## 8692: -0.8 5.6 999 25.6
## 8693: -1.1 5.5 999 26.7
```

```
##
## Year: 1994
             MM DD hh WD WSPD GST WVHT DPD APD MWD
##
       YY
                                                           BAR
##
       ## 1: 94
            1 1 0
                           248 9.9 12.2 0.7 3.6 3.4 267 1022.5
                                                  3.4
##
    2:
                           252 10.3 13.3
                                         0.7
                                              3.4
                                                       269 1022, 7
                   1
                        1
                  1
## 3: 94
                           259 11.7 14.7 0.7 3.4
              1
                        2
                                                  3, 4 270 1023, 4
## 4: 94
                           261 11.8 14.3 0.9 4.0 3.7 265 1023.7
                 1 3
##
   5:
        94
                  1
                       4
                           262 10.4 12.6 0.9
                                             4.0 3.5 271 1024.1
## ---
            12 31 19
12 31 20
## 8683: 94
                           160 5.7 6.7 0.4 10.0 5.7
                                                        74 1026, 6
## 8684:
        94
                           183
                                5.0
                                    6.3
                                         0.4 8.3
                                                  4.5
                                                        72 1026.5
             12
                  31 21
## 8685: 94
                           191 7.2 9.1 0.4 10.0
                                                  4.2
                                                       48 1025, 8
            12 31 22
12 31 23
## 8686: 94
                           192 5.9 6.8 0.4 2.5 3.6 163 1025.7
## 8687:
        94
                           186 7.7 9.9 0.5 2.9 3.3
                                                       171 1025.2
## ATMP WTMP DEWP VIS
##
     <num> <num> <num> <num> <num>
##
    1: -1.1
            5.5 999 26.7
## 2: -1.5 5.5 999 26.9
## 3: -1.4 5.5 999 27.0
## 4: -1.6 5.5 999 26.5
## 5: -1.4 5.5 999 27.1
## ---
## 8683: 2.8 999.0 999
## 8684: 4.3 999.0 999 7.2
       4.7 999.0 999 4.8
## 8685:
## 8686: 4.0 999.0 999 16.3
## 8687: 3.6 999.0 999 17.1
##
## Year: 1995
##
            MM DD hh
                           WD WSPD GST WVHT DPD APD MWD BAR
        YY
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
## 1: 95 1 1 0 198 7.8 9.8 0.6 2.7 3.3 200 1024.4
## 2: 95
                           206 8.8 11.6
                                         0.6 3.0 3.3
                                                       217 1023.8
##
    3:
        95
                   1
                           204 9.9 12.0
                                         0.7
                                              3.1
                                                  3.3
                                                       226 1022, 5
## 4: 95 1 1 3
                           205 11.5 14.2 0.8 3.3 3.3 217 1021.5
## 5: 95 1 1 4 215 10.5 13.2 0.9 3.7 3.6 229 1021.4
## ---
## 8656: 95
            12 31 19
                           245 4.3 5.3 0.2 12.5 5.8
                                                        74 1014.2
## 8657: 95 12 31 20
## 8658: 95 12 31 21
                           245 4.6 5.6 0.2 12.5 4.5
                                                       72 1014.3
                           231
                               3.3 4.2
                                         0.2 14.3
                                                  4.8
                                                        77 1013.5
                  31 22
## 8659: 95
            12
                           232 3.2 3.7 0.2 12.5 6.1 82 1014.3
## 8660: 95 12 31 23 226 3.3 4.1 0.2 14.3 6.4 77 1014.2
##
       ATMP WTMP DEWP VIS
      <num> <num> <num> <num> <num>
##
    1: 3.2 999.0 999 20.0
2: 3.5 999.0 999 21.7
## 3: 4.1 999.0 999 22.6
## 4: 5.1 999.0 999 21.7
## 5: 4.8 999.0 999 22.9
## ---
## 8656: 3.0 5.5 999
## 8657: 3.2 5.5 999
                      7.4
                      7.2
## 8658: 3.2 5.5 999
                     7.7
## 8659: 3.6 5.5 999
## 8660: 3.6 5.5 999
                      8.2
                      7.7
##
## Year: 1996
##
             MM DD hh
                           WD WSPD GST WVHT DPD APD MWD BAR
        YY
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
##
    1: 96
             1 1 0
                           218
                              2.9 3.4 0.16 12.50 6.36
## 2: 96
                           225 2.8
                                    3. 2 0. 17 12. 50 7. 35
                                                        82 1014.0
              1
                   1
                        1
## 3: 96
             1 1 2
                           234 1.9 2.3 0.18 12.50 7.21 74 1013.5
            ##
        96
                           233
                               2.8 3.8 0.17 12.50 6.93
                                                        77 1013.3
    4:
## 5: 96
                           263 3.2 3.8 0.15 12.50 7.36
                                                       89 1013.4
## ---
                  31 19
## 8948:
        96
             12
                           337 7.6 9.8 0.86 4.55 3.85
                                                        49 1021.2
                  31 20
## 8949: 96 12
                           334 8.0 10.7 1.00 5.26 3.83
                                                        49 1021.1
## 8950: 96
             12
                           326 8.6 10.5 1.23 5.00 4.09
                                                        48 1021.9
                  31 21
## 8951:
        96
             12
                  31
                       22
                           323 11.0 13.6 1.31 5.88 4.19
                                                        47 1023.1
## 8952: 96
            12 31 23
                           332 9.4 12.2 1.32 5.26 4.13
                                                       47 1024.1
       ATMP WTMP DEWP VIS
##
##
       <num> <num> <num> <num>
## 1: 3.6 5.5 999
## 2: 3.5
## 3: 3.2
             5. 5
                 999
                       99
             5.5
                 999
                       99
## 4: 3.5 5.5 999
##
    5: 3.2 5.5 999
                       99
##
## 8948: -7.0 6.3
                 999
                       99
## 8949: -7.1
             6.3
                  999
                       99
## 8950: -7.2
             6.3
                 999
                       99
## 8951: -7.6 6.3 999
                       99
## 8952: -8.0 6.3 999
```

```
##
## Year: 1997
             MM DD hh WD WSPD GST WVHT DPD APD MWD
##
       YY
                                                          BAR
##
       1 1 0 322 10.7 13.7 1.27 4.17 4.13 5 1024.9
## 1:
         97
##
    2:
                           312 10.8 13.8 1.41 5.26 4.14
                                                       40 1026, 2
                       1
## 3: 97
              1
                  1
                       2
                           323 11.4 14.0 1.43 4.55 4.25
                                                      355 1026, 8
## 4: 97
                          336 11.4 14.2 1.57 5.56 4.40 42 1027.3
##
   5:
                  1
                       4
                          333 10.9 14.0 1.83 6.67 4.76
                                                       45 1027.6
## ---
## 5708: 97
            12 31 19
                           274 10.4 13.5 1.06 3.85 4.07
                                                      999 1004.0
## 5709:
        97
             12
                  31
                      20
                           290 9.7 12.5 1.02 12.50 4.03
                                                      999 1005.6
                     21
             12
## 5710: 97
                           289 10.1 12.0 1.04 11.11 4.27
                                                      999 1007.7
                  31
            12 31 22
12 31 23
## 5711: 97
                           305 10.4 13.4 0.91 12.50 3.93
                                                      999 1009 7
## 5712:
        97
                           304 13.6 16.9 1.28 4.00 3.96
                                                      999 1011.5
## ATMP WTMP DEWP VIS
##
     <num> <num> <num> <num> <num>
##
    1: -8.3 6.3 999
                      99
## 2: -9.1 6.3 999
## 3: -9.2 6.3 999
## 4: -9.7 6.3 999
                      99
                      99
## 5: -10.6 6.3 999
## ---
## 5708: -1.5 5.9
                 999
                       99
## 5709: -1.8 5.6 999
## 5710: -3.1
            5.5
                 999
                       99
## 5711: -3.7
             5.2
                 999
                       99
## 5712: -4.8 5.1 999
##
## Year: 1998
##
       YY
             MM DD hh
                           WD WSPD GST WVHT DPD APD MWD BAR
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
## 1: 98
            1 1 0 295 10.8 15.4 1.34 4.35 4.24 999 1014.0
                                                      999 1015.4
## 2: 98
                           287 10.6 13.9 1.29 4.35 4.11
##
    3:
        98
                  1
                           286 11.7 15.5 1.12 4.00 4.00
## 4: 98
                 1 3
            1
                          286 11.9 15.0 1.04 4.00 3.94 999 1017.1
## 5: 98 1 1 4
                          295 12.2 14.7 1.26 4.17 4.02 999 1017.9
## ---
## 8780: 98
            12 31 19
                          242 6.9 9.1 0.56 11.11 3.56
                                                      999 1017.8
## 8781: 98
             12 31 20
                          242 6.6 8.6 0.53 2.86 3.58
                                                      999 1017, 7
## 8782:
        98
             12
                  31
                      21
                           229
                               6.2
                                   8.5 0.43 2.94 3.48
                                                      999 1017.9
## 8783: 98
            12
                  31
                           207 5.6 7.7 0.39 10.00 4.25 999 1017.7
                     23
## 8784: 98
            12 31
                          213 5. 2 7. 5 0. 35 11. 11 4. 81 999 1017. 4
##
       ATMP WTMP DEWP
                     VIS
      <num> <num> <num> <num> <num>
##
    1: -5.9 5.1 999
                      99
    2: -6.5
            5.1
                 999
                      99
## 3: -7.0 5.2 999
## 4: -7.6
## 5: -8.1
    4: -7.6 5.6 999
                      99
            5.6 999
                      99
## ---
## 8780: -5.5 5.9 999
                       99
## 8781: -5.1
            5.8
                 999
                       99
## 8782: -4.6 5.6
                 999
## 8783: -4.4
             5.8
                 999
                       99
## 8784: -4.5 5.6 999
                       99
##
## Year: 1999
##
             MM DD hh
                          WD WSPD GST WVHT DPD APD MWD BAR
       YYYY
##
      1: 1999
              1 1 0
                           221
                              5.4 7.2 0.33 11.11 5.25
## 2: 1999
                           218
                              5.6
                                   7.3 0.31 11.11 5.51
                                                      999 1016.5
              1
                  1
                       1
## 3: 1999
                1 2
                           226 5.7 7.0 0.32 12.50 6.53
                                                      999 1015, 8
                 1 3
1 4
##
       1999
                           228
                                    7.3 0.31 11.11 6.17
                                                      999 1015.3
    4:
                               5.7
            1
## 5: 1999
                          237 5.9 7.7 0.39 11.11 5.02 999 1015.0
## ---
## 8344: 1999
             12
                  31 19
                           340 4.9
                                   6.5 0.65 9.09 3.92
                                                      999 1017.2
             12 31 20
                          350 4.5 5.9 0.58 4.17 4.04
                                                      999 1017.4
## 8345: 1999
             12
## 8346: 1999
                          346 3.2 4.6 0.58 11.11 4.24
                  31 21
                                                      999 1018, 0
## 8347: 1999
             12
                  31
                      22
                           360 3.3
                                   4.1 0.51 10.00 4.21
                                                      999 1018.1
## 8348: 1999
            12 31 23
                           5 1.2 2.3 0.51 10.00 4.40
    ATMP WTMP DEWP VIS
##
##
       <num> <num> <num> <num>
## 1: -4.3 5.6 999.0
## 2: -4.0
## 3: -3.9
             5. 7 999. 0
                       99
    3: -3.9
             5.7 999.0
                       99
## 4: -3.9 5.7 999.0
##
   5: -3.8 5.6 999.0
## ---
## 8344: 0.1 5.9 -8.0
## 8345:
       0.5
             5.9 -8.2
                       99
## 8346: 0.8 5.9 -5.5
                       99
## 8347: 0.9 5.9 -4.3
                       99
## 8348: 1.2 5.9 -3.5
```

```
##
## Year: 2000
   V1
            V2 V3 V4 V5 V6 V7 V8 V9 V10 V11
##
                                                         V12
##
       ## 1: 2000
            1 1 0 315 0.8 1.5 0.54 10.00 4.55
                                                      999 1019.2
    2: 2000
                          271
                               0.7
                                   1.9 0.53 4.55 4.61
                       1
                  1
## 3: 2000
                                                      999 1020, 4
              1
                       2
                          232 2.3 3.1 0.52 4.76 4.78
## 4: 2000
            1 1 3
                          236 2.9 3.8 0.52 10.00 4.86
                                                     999 1021.0
   5: 2000
             1
                 1
                     4
                          232 4.1 4.9 0.50 10.00 5.00
                                                     999 1021. 2
## ---
            7 31 19
7 31 20
                          59 3.3 3.8 0.61 9.09 4.68
## 5108: 2000
                                                     999 1024, 1
## 5109:
       2000
                          45
                              3.9 4.7 0.59 9.09 4.94
                                                      999 1023.6
            7 31 21
## 5110: 2000
                          56 3.8 4.5 0.53 8.33 4.71
                                                      999 1023.5
## 5111: 2000
            7 31 22
7 31 23
                          63 4.3 5.1 0.56 8.33 4.94
                                                     999 1023 4
## 5112: 2000
                          56 4.2 5.0 0.61 8.33 5.20 999 1022.8
       V13 V14 V15 V16
##
      <num> <num> <num> <num> <num>
##
    1: 1.1
            5.9 -3.6
                      99
## 2: 1.2 5.9 -3.6
## 3: 1.5 5.8 -3.3
## 4: 1.3 5.9 -3.6
                      99
                      99
## 5: 0.9 5.9 -4.0
## ---
## 5108: 17.2 17.6 16.0
## 5109: 17.2 17.6 16.0
## 5110: 17.2 17.6 15.9
                      99
## 5111: 17.2 17.6 16.0
                      99
## 5112: 17.2 17.6 16.0
##
## Year: 2001
## YYYY MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
       ## 1: 2001 1 1 0 255 13.2 16.4 1.49 4.76 4.30 999 1001.2
## 2: 2001
                          255 14.3 17.5 1.50 4.35 4.17
                                                      999 1002.0
##
    3: 2001
                  1
                          263
                             15.8 19.9 1.68 4.76 4.31
            1 1 3
## 4: 2001
                          267 14.4 17.5 1.64 5.00 4.37
                                                     999 1003.6
## 5: 2001
            1 1 4 270 13.9 17.6 1.55 4.76 4.21 999 1004.6
##
## 8756: 2001
            12 31 19
                          248 9.3 11.1 0.67 3.45 3.21
                                                     999 1009.9
## 8757: 2001
            12 31 20
                          242 8.9 10.7 0.69 3.23 3.15
                                                     999 1010 3
## 8758: 2001
             12
                  31
                      21
                          240 10.5 99.0 99.00 99.00 99.00
                                                      999 9999.0
            12 31 22
## 8759: 2001
                          244 8.6 99.0 99.00 99.00 99.00
## 8760: 2001
            12 31 23 244 8.4 11.3 0.77 3.57 3.31 999 1011.9
##
       ATMP WTMP DEWP VIS TIDE
      <num> <num> <num> <num> <num> <num>
## 1: -1.5 4.3 -7.6
## 2: -1.9 4.3 -7.1
    1: -1.5 4.3 -7.6 99
                          99
                      99
                           99
## 3: -1.9 4.3 -7.3
                          99
## 4: -2.1 4.3 -7.2 99
## 5: -2.2 4.4 -8.3 99
                          99
                          99
## ---
## 8756: -0.3 7.0 -8.7
## 8757: 0.1 7.0 -8.9
                      99
                           99
                      99
                           99
## 8758: 999.0 999.0 999.0
## 8759: 999.0 999.0 999.0
                      99
                           99
## 8760: 0.1 6.7 -8.9
                      99
                           99
##
## Year: 2002
            MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
      YYYY
##
      1: 2002
             1 1 0
                          227 8.5 10.4 0.60 3.23 3.13
## 2: 2002
                          234 9.5 11.5 0.66 3.13 3.09
                                                      999 1013.4
                  1
                       1
            1 1
                       2
## 3: 2002
                          232 9.7 12.4 0.73 3.57 3.26 999 1013.9
##
    4: 2002
                          255 10.5 12.5 0.80 3.70 3.37
                                                      999 1013.5
                  1
                       3
            1 1 4
## 5: 2002
                          261 10.1 12.4 0.79 3.70 3.45 999 1013.4
## ---
                 31 19
## 8756: 2002
            12
                          183
                              4.5 5.8 0.96 5.56 4.16
                                                      999 1015.0
                 31 20
                                                     999 1014.6
## 8757: 2002
            12
                          313 2.0 2.4 0.93 4.55 4.31
                 31 21
31 22
## 8758: 2002
            12
                          316 2.0 2.5 0.98 6.25 4.62
                                                      999 1014.7
## 8759: 2002
             12
                  31
                          330 2.6 3.2 0.99 6.67 4.98
                                                      999 1014.3
## 8760: 2002
            12 31 23
                          322 0.8 1.8 1.11 7.14 5.12 999 1013.6
      ATMP WTMP DEWP VIS TIDE
##
##
       <num> <num> <num> <num> <num> <num>
## 1: 0.0 6.7 -8.4 99
   2: 0.0 6.7 -8.3
3: -0.5 6.7 -8.1
##
                      99
                           99
                      99
                           99
## 4: -0.4 6.7 -8.1 99
   5: -0.4 6.7 -8.5
                          99
## ---
## 8756: 5.1 6.0 4.8
                           99
## 8757:
       4.4
            6.0 4.2
                      99
                           99
       4.8 6.0 4.6
## 8758:
                      99
                           99
## 8759: 4.7 6.0 4.6 99
                           99
## 8760: 4.5 6.0 4.4
                           99
```

```
±±
## Year: 2003
   YYYY
             MM DD hh WD WSPD GST WVHT DPD APD MWD
##
                                                          BAR
##
       1 1 0 153 0.6 1.2 0.99 6.67 5.03
## 1: 2003
                                                      999 1012.8
    2: 2003
                          183
                               3.4
                                   3.8 0.93 6.67 4.92
                                                      999 1012, 6
                   1
                       1
## 3: 2003
              1
                  1
                       2
                          180 4.2 5.0 0.89 6.25 4.91
                                                      999 1011.8
## 4: 2003
                          207 6.4 7.4 0.80 6.67 4.89
                                                      999 1011.1
                1 3
##
    5: 2003
                  1
                       4
                          204
                              7.3 8.2 0.70 6.67 4.73
                                                      999 1010.3
##
## 8755: 2003
            12 31 19
                          276 5.4 6.5 0.48 3.23 3.09
                                                      999 1019.0
## 8756:
       2003
                  31
                      20
                          237
                               3.7
                                   4.3 0.28 2.86 3.03
                                                      999 1018.9
             12
             12
                 31 21
## 8757: 2003
                          208
                             3.0 3.6 0.18 2.50 3.24
                                                      999 1018, 1
            12 31 22
12 31 23
## 8758: 2003
                          185 4.3 5.2 0.00 0.00 0.00
                                                      999 1017 4
## 8759: 2003
                          161
                              4.6 5.3 0.00 0.00 0.00
                                                     999 1016.6
       ATMP WTMP DEWP VIS TIDE
##
      <num> <num> <num> <num> <num> <num>
##
    1: 4.7
            6.0 4.6
                      99
                           99
## 2: 4.7
            6.0 4.6
## 3: 5.0 6.0 4.9
## 4: 5.9 6.0 5.8
                      99
                           99
                      99
                           99
## 5: 6.0 6.0 5.3
                     99
                          99
## ---
## 8755: 5.5
            5.2 -1.4
                      99
                           99
## 8756: 5.7
            5.2 0.0
## 8757:
       5.6
            5.2 0.7
                      99
                           99
## 8758: 5.9
            5.2 0.0
                      99
                           99
## 8759: 5.5 5.2 -0.3
##
## Year: 2004
## YYYY
             MM DD hh
                          WD WSPD GST WVHT DPD APD MWD
                                                          BAR
       ## 1: 2004
            1 1 0 184 8.6 10.5 0.17 2.50 3.03 999 1014.9
                                                      999 1014.2
## 2: 2004
                               9.7 11.7 0.43 2.78 2.89
                          214
##
    3: 2004
                          227
                              9.9 12.2 99.00 99.00 99.00
                  1
            1 1
## 4: 2004
                          232 11.8 14.5 0.96 3.45 3.34 999 1013.0
                      3
## 5: 2004
            1 1 4 232 9.2 11.3 1.00 3.57 3.43 999 1013.2
##
## 8757: 2004
            12 31 19 153 7.5 8.8 0.96 4.35 3.85
                                                      999 1025.9
## 8758: 2004
            12 31 20
                          165 6.2 7.4 0.96 4.76 3.92
                                                      999 1025 6
## 8759:
       2004
             12
                  31
                      21
                          172
                               6.4
                                   7.2 0.96 4.35 4.00
                                                      999 1025.0
            12 31 22
## 8760: 2004
                          175
                              8.1 9.9 0.87 4.76 3.91
                                                      999 1023.8
## 8761: 2004
            12 31 23
                          176 9.2 10.4 0.88 4.17 3.69 999 1023.0
##
       ATMP WTMP DEWP VIS
                          TIDE
      <num> <num> <num> <num> <num> <num>
    1: 5. 2 5. 2 999. 0 99
2: 5. 1 5. 2 0. 0 99
##
                           99
##
                           99
## 3: 4.8 5.2 -0.8 99
                          99
## 4: 5.1
## 5: 5.2
            5.2 -0.2
                      99
                          99
            5.2 -0.7
                      99
                           99
## ---
## 8757: 6.3 6.3 4.9
## 8758: 6.6 6.3 5.4
                      99
                           99
                      99
                           99
## 8759: 7.4 6.3 5.9
## 8760:
        7.4
            6.3 6.3
                      99
                           99
## 8761: 7.4 6.3 6.7
                      99
                           99
##
## Year: 2005
##
                           mm WD WSPD GST WVHT DPD APD MWD
       YYYY
             MM
                DD hh
##
       1: 2005
             1 1 0
                           0 187
                                   9.0 10.1 0.85 3.23 3.58
## 2: 2005
                              193
                                   8.3 10.5 0.78 3.85 3.57
              1
                  1
                       1
## 3: 2005
            1 1 2
                            0 212 7.0 8.9 0.90 3.13 3.50
                                                          999
            1 1 3
1 1 4
##
    4: 2005
                           0 210
                                   8.8 11.2 1.00 4.17 3.70
                                                          999
                          0 237
## 5: 2005
                                   6.8 8.0 1.00 3.33 3.79
                                                          999
## ---
                 31 19
## 8704: 2005
             12
                          0 56
                                   4.3 5.7 0.98 11.11 5.64
                                                          999
                 31 20 0 56 3.4 4.5 1.06 10.00 5.49
## 8705: 2005
             12
                                                          999
             12
                 31 21
31 22
                               52 2.9 4.7 1.07 11.11 5.65
## 8706: 2005
                          0
                                                          999
## 8707: 2005
             12
                  31
                           0
                                59
                                   5.1
                                        6.7 1.03 11.11 5.49
                                                          999
            12 31 23
## 8708: 2005
                               52 4.5 7.2 1.00 11.11 5.28
        BAR ATMP WTMP DEWP VIS TIDE
##
##
       <num> <num> <num> <num> <num> <num> <num> <num>
  1: 1022.6 7.6 6.3 7.1 99 99
##
    2: 1022.1
                  6.3 6.1
                            99
                                99
             8. 3
##
    3: 1022.0
             8.2
                 6.3 5.2
                            99
                                99
## 4: 1021.1 8.7 6.3 5.1
    5: 1021.4 7.9 6.3 5.0
                           99
                                99
## 8704: 1011.0 0.4 5.8 999.0
                                99
## 8705: 1011.1
             0.4
                  5.9 999.0
                            99
                                99
                 5.9 -4.1
## 8706: 1011.6 0.8
                            99
                                99
## 8707: 1011.1 1.1 5.9 -2.7
                            99
                                99
## 8708: 1011.4 1.4 5.8 -0.8
```

```
±±
## Year: 2006
   YYYY
             MM DD hh
                           mm WD WSPD GST WVHT DPD APD MWD
##
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
## 1: 2006
            1 1 0
                            0 74 5.3 6.1 0.92 11.11 5.01
    2: 2006
                            0
                                83
                                    4.9
                                         6.0 0.89 10.00 5.09
                   1
                        1
## 3: 2006
              1
                   1
                        2
                            0
                                82 5.3 6.9 0.84 11.11 4.78
                                                           999
## 4: 2006
                 1 3
                            0 62 8.9 10.9 0.99 11.11 4.32
                                                           999
##
    5: 2006
                  1
                       4
                            0 56
                                   9.8 11.5 1.40 4.55 4.16
##
                          0 305 4.5 6.0 0.57 4.55 3.49
             12 31 19
12 31 20
## 8719: 2006
                                                           999
## 8720:
       2006
                            0
                               321
                                    3.2
                                        4.8 0.47 4.55 3.69
                                                            999
                  31 21
             12
## 8721: 2006
                           0 276
                                   3.1 5.0 0.40 4.35 4.09
                                                           999
             12
                  31 22
31 23
## 8722: 2006
                           0 313 3.3 4.4 0.41 5.88 4.26
                                                           999
## 8723: 2006
             12
                            0
                               303
                                    2.8 3.7 0.39 5.56 4.30
                                                           999
       BAR ATMP WTMP DEWP VIS TIDE
##
       <num> <num> <num> <num> <num> <num> <num>
##
    1: 1011.8
             0.6 5.8 -0.7
                           99
                                 99
## 2: 1011.5 0.7 5.8 0.4
##
    3: 1010.7 1.3 5.8 0.4
                            99
                                 99
                  5.8 1.3
##
    4: 1009.6
             1.7
                            99
                                 qq
  5: 1009.3 1.1 5.8 0.4
                           99
##
## 8719: 1028.8 2.2 7.1 999.0
                            99
                                 99
## 8720: 1028.8 2.7 7.1 999.0
## 8721: 1028.9
             3.2
                  7.1 999.0
                            99
                                 99
## 8722: 1029.0
             3.5
                  7.1 999.0
                            99
                                 99
## 8723: 1028.9 3.8 7.1 999.0
##
## Year: 2007
##
       #YY
             MM DD hh
                           mm WDIR WSPD GST WVHT DPD APD MWD
       ## 1: 2007
                           0 209 2.2 3.1 0.39 5.00 4.32 999
             1 1 0
## 2: 2007
                            0
                               184
                                         2.3 0.37 4.76 4.33
                                    1.6
##
    3: 2007
                   1
                            0
                               173
                                    2.8
                                         4.0 0.33 4.17 4.24
             1 1 3
## 4: 2007
                           0 183 5.6 6.7 0.32 4.17 4.19
                                                           999
## 5: 2007
             1 1 4
                           0 201 6.0 7.1 0.32 2.50 3.38
                                                           999
##
## 8690: 2007
             12 31 19
                           0 271 11.7 13.9 1.47 7.69 4.75
             12 31 20
12 31 21
## 8691: 2007
                           0 280 11.8 14.9 1.68 7.69 4.62
                                                           999
## 8692: 2007
                            0
                               271 12.8 16.1 1.58 8.33 4.49
                                                           999
                  31 22
             12
## 8693: 2007
                            0 278 12.1 14.5 1.50 4.35 4.44
## 8694: 2007
             12 31 23
                            0 272 12.7 15.5 1.42 4.35 4.29
                                                           999
##
        PRES ATMP WTMP DEWP VIS TIDE
       <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1029.0 3.6 7.1 999.0 99
                                 99
    2: 1028.8
             3.5
                  7.1 999.0
                            99
                                 qq
## 3: 1028.9 3.6 7.1 999.0
                                 99
##
    4: 1028.3 3.1 7.1 999.0
                            99
                                 99
##
    5: 1028.7 2.8 7.1 999.0
                           99
                                 99
## ---
## 8690: 1007.4 4.2 4.0 0.3
                                 99
                            99
## 8691: 1008.9 4.4 4.3 -0.2
                            99
                                 99
## 8692: 1010.6 4.7 4.3 -0.9
                                 99
## 8693: 1012.2 4.7
                  4.4 -1.1
                            99
                                 99
## 8694: 1013.7 4.3 4.6 -1.3
                            99
                                 99
## Year: 2008
##
                           mm WDIR WSPD GST WVHT DPD APD MWD
       #YY
             MM DD hh
##
      1: 2008
              1 1 0
                            0 274 11.6 14.1 1.40 4.17 4.17
## 2: 2008
                            0 282 10.6 12.9 1.23 4.17 4.02
                   1
                       1
## 3: 2008
                 1 2
                            0 284 9.5 11.5 1.05 4.00 3.99
                                                           999
                 1 3
1 4
##
    4: 2008
                            0
                               282
                                    7.3 8.7 0.85 3.45 3.79
                                                           999
             1
## 5: 2008
                          0 268 4.9 6.0 0.64 7.69 4.09
                                                           999
## ---
                  31 18
## 8741: 2008
             12
                           50
                                16 14.4 16.9 2.33 5.88 5.01
                                                           999
                  31 19
## 8742: 2008
                           50 19 14.5 16.9 2.67 6.25 5.26
             12
                                                           999
             12
                  31 20
31 21
                               4 13.6 16.2 3.07 6.67 5.68
## 8743: 2008
                           50
                                                           999
## 8744: 2008
             12
                           50
                               335 13.5 16.2 2.53 7.14 5.27
                                                           999
             12 31 22
## 8745: 2008
                           50 329 13.7 16.4 2.43 7.14 5.24
       PRES ATMP WTMP DEWP VIS TIDE
##
##
       <num> <num> <num> <num> <num> <num> <num> <num>
## 1: 1015.3 4.0 4.7 -1.6
##
    2: 1016.4
             3.6
                  4.7 -1.7
                            99
                                 99
##
                  4.8 -1.6
    3: 1017.8
             3.3
                            99
                                 99
## 4: 1018.9 3.2 4.8 -1.7
    5: 1019.5 2.8 4.8 -1.4
                           99
                                 99
##
## 8741: 996.8 -1.9 5.6 -2.2
                                 99
## 8742: 997.2 -3.0
                  5.6 -3.2
                            99
                                 99
## 8743: 997.9 -2.9
                  5, 6 -4, 1
                            99
                                 99
## 8744: 1000.0 -4.4 5.6 -5.2
                            99
                                 99
## 8745: 1001.3 -4.9 5.6 -5.9
```

```
±±
## Year: 2009
       #YY
             MM DD hh
                           mm WDIR WSPD GST WVHT DPD APD
##
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
## 1: 2008
             12 31 23
                            50 326 14.4 17.3 2.52 7.14 5.27
##
    2: 2009
                        0
                            50
                                316 16.7 19.7 2.65 7.14 5.05
              1
                   1
## 3: 2009
              1
                   1
                        1
                            50
                                307 15.7 19.0 3.01 6.25 5.27
                                                             999
## 4: 2009
                 1 2
                            50 315 17.0 20.7 2.65 5.88 5.19
                                                             999
##
    5: 2009
                   1
                       3
                            50 315 16.5 20.8 3.05 5.56 5.34
##
                           50 274
## 8728: 2009
             12 31 18
                                    4.2 5.7 0.42 11.43 3.61
                                                             999
## 8729:
       2009
                   31
                       19
                            50
                                258
                                     3.6
                                         4.7 0.39 11.43 3.38
              12
                                                             999
                  31 20
              12
## 8730: 2009
                                    0.4 1.3 0.35 10.81 4.14
                           50
                                55
                                                             999
                  31 21
31 22
                           50
## 8731: 2009
             12
                                339 1.3 2.2 0.34 12.12 5.39
                                                             999
## 8732: 2009
             12
                            50
                                15
                                    0.7 1.7 0.35 12.12 5.42
                                                             999
       PRES ATMP WTMP DEWP
                           VIS TIDE
##
       <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1002.4 -5.3 5.6 -6.8
                                  99
  2: 1003.2 -7.7
                  5.6 -9.6
##
    3: 1003.9 -8.7 5.6 -12.0
                            99
                                  99
##
    4: 1004.8 -10.1
                  5.5 -13.2
                             99
                                  99
  5: 1005.5 -10.6 5.5 -13.2 99
##
## 8728: 1021.8 -0.8
                  6.0 -1.6
                             99
                                  99
## 8729: 1022.1 -0.8
                  6.0 -1.4
## 8730: 1021.0 -0.5
                   5.9 -1.1
                             99
                                  99
## 8731: 1021.2 -0.2
                   5.9 -0.9
                             99
                                  99
## 8732: 1020.8 0.5 5.9 0.3
##
## Year: 2010
##
       #YY
              MM
                 DD hh
                            mm WDIR WSPD GST WVHT DPD APD MWD
       ## 1: 2009
             12 31 23
                           50 37 1.2 2.0 0.35 12.12 5.43 999
## 2: 2010
                        0
                            50
                                          3.5 0.35 12.12 5.02
                   1
                                 32 2.5
##
    3: 2010
                        1
                            50
                                 2
                                     4.1
                                          5.1 0.38 12.90 5.19
                   1
                 1 2
             1
## 4: 2010
                                 4 4.3 5.5 0.38 12.12 4.94
                            50
                                                             999
## 5: 2010
             1 1 3 50 355 5.4 6.5 0.41 13.79 3.62
                                                             999
##
## 7840: 2010
             12 31 18
                           50 216 2.2 2.4 0.18 99.00 3.21
## 7841: 2010
             12 31 19
                            50 221
                                    4.0 4.5 0.17 99.00 4.11
                                                             999
## 7842:
       2010
              12
                   31
                       20
                            50
                                203
                                     2.8
                                         3.3 0.17 99.00 3.85
                                                             999
                  31 21
## 7843: 2010
             12
                            50
                                190 4.1 4.6 0.16 99.00 3.85
## 7844: 2010
             12 31 22
                            50 213 3.7 4.2 0.17 99.00 3.77
                                                             999
##
        PRES ATMP WTMP DEWP
                            VIS TIDE
        <num> <num> <num> <num> <num> <num> <num> <num>
    1: 1020.0 1.0 5.9 -0.2 99
##
                                 99
##
    2: 1019.4
             1.5
                  6.0 -0.6
                             99
                                  99
## 3: 1018.4 1.4 6.0 -0.7
                                  99
    4: 1017.8 1.1 6.0 -0.8
##
                            99
                                  99
                            99
##
    5: 1016.8 0.8 6.1 -0.6
                                  99
## 7840: 1018.4 7.2 6.5 3.2
                                  99
                             99
## 7841: 1018.6 7.5
                  6, 5 3, 0
                             99
                                  99
## 7842: 1018.6 7.4
                   6.4 3.8
## 7843: 1018.3
              7.0
                  6.3 4.0
                             99
                                  99
## 7844: 1018.5 7.0 6.2 3.5
                             99
                                  99
## Year: 2011
##
                            mm WDIR WSPD GST WVHT DPD APD MWD
       #YY
             MM DD hh
##
       1: 2010
             12
                  31 23
                            50 225
                                    3.8
                                         4.2 0.16 99.00 4.05
## 2: 2011
                                          5.7 0.19 99.00 2.74
                       0
                            50
                                234
                                    4.9
              1
                   1
                  1 1
1 2
## 3: 2011
                            50 234 5.8 7.1 0.25 99.00 2.56
                                                             999
                 1 2 50 233
1 3 50 227
##
    4: 2011
                                     5.7
                                          6.8 0.39 2.47 2.58
                                                             999
             1
  5: 2011
                                     6.4
##
                                         7.2 0.43 2.47 2.57
                                                             999
## ---
## 8742: 2011
             12
                  31 18
                           50
                                180
                                     0.0 0.1 99.00 99.00 99.00
                                                             999
                  31 19
                           50 281
                                         3.8 99.00 99.00 99.00
## 8743: 2011
             12
                                     2.4
                                                             999
             12
## 8744: 2011
                  31 20
                            50
                                287
                                    2.4 3.7 99.00 99.00 99.00
                                                             999
## 8745: 2011
              12
                   31
                       21
                            50
                                286
                                     2.8
                                         4.5 99.00 99.00 99.00
                                                             999
                  31 22
## 8746: 2011
             12
                                289
                                     2.6 3.7 99.00 99.00 99.00
        PRES ATMP WTMP DEWP
##
                           VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num> <num>
  1: 1018.7 6.8 6.2 3.5
##
    2: 1018.5
                   6. 2
                       2. 5
                             99
                                  99
              6.4
##
    3: 1018.3
              6.1
                   6.1
                       2.3
                             99
                                  99
## 4: 1018.0 5.8 6.1 1.7
    5: 1017.8 5.7 6.1 1.3
                            99
                                  99
## 8742: 1008.4 4.9 5.7 4.2
                                  99
                  6. 1 4. 3
9. 1 4. 2
## 8743: 1008.0
             5.4
                             99
                                  99
## 8744: 1008.1
             5. 7
                             99
                                  99
## 8745: 1008.9 5.7 7.4 4.3
                             99
                                  99
## 8746: 1009.5 5.6 6.4 4.8
```

```
±±
## Year: 2012
   #YY
             MM DD hh
                           mm WDIR WSPD GST WVHT DPD APD MWD
##
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
## 1: 2012
              6 30 23
                            50 253 3.4 4.2 0.52 9.09 5.33
    2: 2012
                        0
                            50
                                198
                                     3.5
                                         4.1 0.53 7.69 5.41
                   1
## 3: 2012
              7
                   1
                        1
                            50
                                199 4.0 4.7 0.48 10.00 5.60
                                                             102
## 4: 2012
             7 1 2
                            50 218 3.9 4.4 0.45 9.09 5.20
                                                             87
##
    5: 2012
                  1
                      3
                            50 222
                                    4.5 4.8 0.41 7.69 4.68
                                                             100
##
## 4405: 2012
             12 31 18
                           50 277 11.6 14.2 0.95 4.00 3.61
                                                             258
## 4406:
       2012
                       19
                            50
                                271 10.9 13.3 0.90 4.17 3.54
              12
                  31
                                                             266
                  31 20
              12
                            50 274 9.6 11.1 0.91 3.85 3.60
## 4407: 2012
                                                             273
             12
                  31 21
31 22
## 4408: 2012
                            50
                                277 10.0 12.2 0.84 3.70 3.53
                                                             267
## 4409: 2012
             12
                            50
                                257 7.4 9.7 0.65 3.70 3.36
                                                             279
       PRES ATMP WTMP DEWP
                           VIS TIDE
##
       ##
    1: 1005.4 23.2 18.2 15.7
                                 99
## 2: 1005.7 22.0 18.2 16.8
##
    3: 1006.1 21.6 18.1 17.8
                             99
                                 99
##
    4: 1006.1 21.6 18.0 17.7
                             99
                                  qq
  5: 1006.5 21.5 17.7 17.8 99
## -
## 4405: 1012.2 1.6 7.7 -3.6
                             99
                                  99
## 4406: 1012.2 1.3 7.8 -3.9
                  7.8 -3.8
## 4407: 1012.3
             1.6
                             99
                                 99
## 4408: 1012.1
             2.0
                  7.8 -3.7
                             99
                                  99
## 4409: 1011.5 2.0 7.8 -4.1
##
## Year: 2013
##
       #YY
              MM DD hh
                            mm WDIR WSPD GST WVHT DPD APD MWD
       ## 1: 2012
                           50 234 8.5 10.2 0.42 3.33 3.14
            12 31 23
## 2: 2013
                        0
                            50
                                246 9.0 10.9 0.52 2.86 2.94
                   1
##
    3: 2013
                 \begin{array}{ccc} 1 & 1 \\ 1 & 2 \end{array}
                            50
                                243
                                    7.3 9.4 0.50 3.33 3.05
             1
## 4: 2013
                            50 252 10.5 12.4 0.50 3.03 2.99
                                                             244
## 5: 2013
             1 1 3 50 256 10.9 13.0 0.65 3.70 3.28
                                                             265
##
## 8205: 2013
             12 31 18
                           50 267
                                    5.1 7.1 0.59 10.81 4.03
             12 31 19
12 31 20
## 8206: 2013
                           50 276 4.4 6.9 0.57 10.00 4.33
                                                              86
## 8207: 2013
                            50
                                278
                                    5.6 7.2 0.55 10.00 4.48
                                                              97
                  31 21
             12
                                254 6.7 9.2 0.52 10.81 4.59
## 8208: 2013
                            50
## 8209: 2013
             12 31 22
                            50 257 8.4 11.0 0.65 10.00 3.79
                                                             79
##
        PRES ATMP WTMP DEWP
                            VIS TIDE
        <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1011.6 1.5 7.7 -3.7 99
                                 99
                  7.7 -4.1
    2: 1010.8
             1.5
                             99
                                 99
## 3: 1010.0 1.8 7.7 -4.0
                                99
                           99
99
##
    4: 1009.0 2.4 7.7 -3.8
                                 99
##
    5: 1008.1 2.6 7.7 -3.8
                                 99
## ---
## 8205: 1017.5 -5.8 5.9 -14.8
                                  99
                             99
## 8206: 1017.4 -4.8
                  5.8 -14.6
                             99
                                  99
## 8207: 1018.2 -3.9
                  5.8 -13.3
## 8208: 1018.6 -2.8
                  5.7 -12.0
                             99
                                  99
## 8209: 1019.3 -2.0 5.8 -10.0
                            99
                                  99
## Year: 2014
                           mm WDIR WSPD GST WVHT DPD APD MWD
##
       #YY
             MM DD hh
##
      1: 2013
             12
                  31 23
                            50 255 6.5 10.1 0.66 3.45 3.54
## 2: 2014
                       0
                            50
                                246 7.4 10.1 0.63 3.23 3.56
              1
                  1
             1 1 1 50 246 9.7 11.7 0.55 3.13 3.33
1 1 2 50 275 11.1 14.5 0.78 3.45 3.43
1 1 3 50 277 10.7 15.2 0.94 3.85 3.46
## 3: 2014
                            50 246 9.7 11.7 0.55 3.13 3.33
                                                             276
##
    4: 2014
                                                             270
## 5: 2014
                                                             262
## ---
                  31 18
## 8749: 2014
             12
                           50
                                289
                                    6.1
                                          8.6 0.38 2.86 2.87
                                                             288
                  31 19
## 8750: 2014
                           50 303
             12
                                    5.6
                                          8, 4 0, 48 3, 23 3, 03
                                                             273
             12
                  31 20
31 21
                           50 299 5.1 7.8 0.50 3.23 3.04
## 8751: 2014
                                                             285
## 8752: 2014
              12
                            50
                                298
                                    4.3
                                          6.9 0.46 3.33 3.04
                                                             286
             12 31 22
## 8753: 2014
                                282 5.7 8.0 0.45 3.23 3.04
       PRES ATMP WTMP DEWP
##
                           VIS TIDE
##
        ## 1: 1019.2 -2.1 5.8 -9.6
##
    2: 1019.2 -2.2
                  5.8 -8.4
                             99
                                 99
##
    3: 1019.8 -1.9
                  5.9 -7.3
                             99
                                 99
## 4: 1019.6 -1.7 5.9 -8.3
    5: 1020.2 -2.1 5.9 -9.4
                            99
                                 99
## 8749: 1022.9 -2.1 5.5 999.0
                                  99
## 8750: 1023.1 -2.1
                  5.5 999.0
                             99
                                  99
## 8751: 1023.2 -1.8
                  5, 6, 999, 0
                             99
                                  99
## 8752: 1023.0 -2.1 5.7 999.0
                             99
                                  99
## 8753: 1023.2 -1.9 5.7 999.0
```

```
±±
## Year: 2015
   #YY
             MM DD hh
                           mm WDIR WSPD GST WVHT DPD APD MWD
##
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
## 1: 2014
            12 31 23
                            50 287 4.9 8.3 0.44 3.23 3.06
    2: 2015
                        0
                            50
                                280
                                    4.8
                                         7.7 0.39 3.03 2.91
              1
                   1
## 3: 2015
              1
                   1
                       1
                            50 275 4.1 5.4 0.35 2.86 2.98
## 4: 2015
             1 1 2
                           50 236 5.3 6.9 0.27 2.86 2.82
                                                            277
##
    5: 2015
              1
                  1
                      3
                           50 220
                                    4.8 6.9 0.20 99.00 2.77
##
             12 31 18
12 31 19
                           50 298
## 8745: 2015
                                    7.6 8.8 1.23 10.00 5.78
                                                             93
## 8746:
       2015
                            50
                                310
                                         8.1 1.23 10.00 5.43
                                    6.4
                                                            100
                  31 20
             12
## 8747: 2015
                               284 7.7 9.8 1.22 10.81 5.55
                            50
                                                             74
                  31 21
31 22
                           50
## 8748: 2015
             12
                                280 8.8 10.6 1.25 10.00 5.28
                                                             94
## 8749: 2015
             12
                            50
                                278 10.2 12.1 1.29 10.00 5.24
                                                             81
       PRES ATMP WTMP DEWP VIS TIDE
##
       ##
    1: 1022.9 -2.3 5.7 999.0
                                 99
## 2: 1022.7 -2.3 5.7 999.0
##
    3: 1022.2 -2.5 5.7 999.0
                             99
                                 99
##
    4: 1021.9 -2.3
                  5.6 999.0
                             99
                                 99
  5: 1021.2 -2.7 5.6 999.0 99
##
## 8745: 1013.2 7.2
                  8.7 3.7
                             99
                                 99
## 8746: 1013.4 6.8 8.7 3.4
                  8.7 2.5
8.6 1.7
             7.0
## 8747: 1014.1
                             99
                                 99
## 8748: 1014.8
             6.5
                             99
                                 99
## 8749: 1014.7 6.5 8.6 1.1
##
## Year: 2016
##
       #YY
             MM DD hh
                            mm WDIR WSPD GST WVHT DPD APD MWD
       ## 1: 2015
            12 31 23
                           50 280 8.8 10.6 1.06 10.00 4.83
## 2: 2016
                        0
                            50
                                275
                                    9.9 12.0 1.01 10.00 4.60
                   1
##
    3: 2016
             \begin{array}{cccc} 1 & 1 & 1 \\ 1 & 1 & 2 \end{array}
                            50
                                266
                                    8.9
                                        10.4 1.09 10.00 4.49
                                                             83
## 4: 2016
                            50 274 9.3 10.7 1.04 10.00 4.42
                                                             81
## 5: 2016
             1 1 3 50 279 9.8 11.5 1.08 9.09 4.56
                                                             87
##
## 8691: 2016
             12 31 18
                           50 191
                                    7.5 9.1 0.52 10.81 3.31
## 8692: 2016
             12 31 19
                           50 188 7.5 9.5 0.58 10.81 3.30
                                                            336
## 8693:
       2016
              12
                  31
                       20
                            50
                                182
                                     7.6 9.3 0.57 11.43 3.41
                                                            320
                  31 21
             12
## 8694: 2016
                            50
                               174
                                    9.1 11.4 0.71 10.81 3.52
                                                            80
## 8695: 2016
             12 31 22
                           50 175 8.8 10.2 0.74 4.00 3.60 134
##
        PRES ATMP WTMP DEWP
                            VIS TIDE
        <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1015.1 6.4 8.6 0.3 99
                                99
    2: 1015.2
             6.3 8.5 -0.4
                             99
                                 99
## 3: 1015.4 6.0 8.5 0.3
                                99
    4: 1015.3 5.7 8.5 -0.3 99
5: 1015.3 5.5 8.4 -0.4 99
##
                                 99
##
    5: 1015.3 5.5 8.4 -0.4
                                 99
## 8691: 1017.1 2.0 8.2 999.0
                                 99
                             99
## 8692: 1016.8
             2.4
                  8, 2, 999, 0
                             99
                                 99
                  8.2 999.0
## 8693: 1016.3 3.1
                                 99
## 8694: 1015.4
             3.7
                  8.1 999.0
                             99
                                 99
## 8695: 1015.1 4.2 8.1 999.0
                            99
                                 99
## Year: 2017
##
                           mm WDIR WSPD GST WVHT DPD APD MWD
       #YY
             MM DD hh
##
      1: 2016
             12
                  31 23
                            50 177
                                    9.1 10.7 0.82 10.81 3.84
## 2: 2017
                       0
                            50
                               177
                                    7.3 8.8 0.87 10.81 3.94
              1
                  1
             1 1 1 50 174
1 1 2 50 186
1 1 3 50 207
## 3: 2017
                            50 174 7.4 8.7 0.85 4.00 3.95
##
    4: 2017
                                    8.6 10.7 0.85 4.35 3.92
                                                            135
## 5: 2017
                                    7.9 10.0 0.94 12.12 3.90
                                                            126
## ---
                  31 18
## 8692: 2017
             12
                           50
                                297 12.4 15.0 1.22 4.55 3.81
                                                            306
                  31 19
                           50 294 12.6 15.7 1.15 4.35 3.81
## 8693: 2017
             12
                                                            312
             12
## 8694: 2017
                  31 20
                           50 294 11.8 16.8 1.29 4.55 3.89
                                                            302
## 8695: 2017
              12
                  31
                       21
                            50
                                293 12.8 17.0 1.36 4.55 3.97
                                                            299
                  31 22
## 8696: 2017
             12
                                298 12.0 15.1 1.26 4.76 3.91
       PRES ATMP WTMP DEWP
##
                           VIS TIDE
##
        ## 1: 1014.5 5.3 8.1 999
##
    2: 1013.7
                       999
                             99
                                 99
             6. 0
                  8. 1
##
    3: 1012.7
             7.0
                  8.2
                       999
                             99
                                 99
## 4: 1011.8 7.6 8.2 999
    5: 1010.8 7.2 8.2 999
                            99
                                 99
## 8692: 1017.4 -9.7 6.5
                       999
                                 99
## 8693: 1018.5 -9.5
                  6.5
                       999
                             99
                                 99
## 8694: 1019.7 -9.3
                  6.5
                       999
                             99
                                 99
## 8695: 1019.7 -9.2 6.5 999
                             99
                                 99
## 8696: 1020.3 -9.4 6.5 999
```

```
±±
## Year: 2018
                           mm WDIR WSPD GST WVHT DPD APD MWD
##
       #YY
             MM DD hh
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
            12 31 23
                            50 302 13.3 16.7 1.19 4.35 3.76
## 1: 2017
##
    2: 2018
                       0
                            50
                                294 11.5 15.0 1.30 4.76 3.97
              1
                   1
## 3: 2018
              1
                   1
                       1
                            50 295 12.0 15.3 1.25 4.35 3.84
                                                            304
## 4: 2018
                 1 2
                           50 305 10.5 14.2 1.18 4.17 3.74
##
    5: 2018
                  1
                      3
                           50 314 11.8 14.2 1.14 3.85 3.65
##
## 8656: 2018
             12 31 18
                           50 157
                                    4.5 5.1 0.44 13.79 4.54
## 8657:
       2018
                      19
                            50
                                155
                                    5.7
                                         7.0 0.43 14.81 3.84
              12
                  31
                  31 20
             12
                               168 8, 4 9, 5 0, 55 13, 79 3, 63
## 8658: 2018
                            50
                                                            169
             12
                  31 21
31 22
                           50
## 8659: 2018
                               165 8.3 9.7 0.71 3.57 3.70
                                                            140
## 8660: 2018
             12
                            50
                                157
                                    7.9 9.6 0.67 3.85 3.59
                                                            137
       PRES ATMP WTMP DEWP VIS TIDE
##
       <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1020.6 -10.3 6.5 999.0
                                 99
## 2: 1020.9 -10.3 6.5 999.0
##
    3: 1020.8 -11.1 6.5 999.0
                            99
                                 99
##
    4: 1021.1 -11.8
                  6.5 999.0
                             99
                                 99
  5: 1021.1 -12.2 6.5 999.0 99
## -
## 8656: 1026.4 5.7 7.0 0.2
                             99
                                 99
## 8657: 1025.7 6.0 7.0 1.1
## 8658: 1024.8
             5.9
                  7.0 -0.4
                             99
                                 99
## 8659: 1024.6
             5.6
                  7.0 -0.2
                             99
                                 99
## 8660: 1024.9 5.3 7.0 -0.5
##
## Year: 2019
##
       #YY
              MM DD hh
                            mm WDIR WSPD GST WVHT DPD APD MWD
       ## 1: 2019
             1 1 0 50 158 9.6 11.5 0.81 4.00 3.77 135
## 2: 2019
                            50
                               136 10.6 12.3 0.99 4.35 3.95
##
    3: 2019
                            50
                                143 11.1 13.3 1.22 4.76 4.18
                   1
             1 1 3
## 4: 2019
                           50
                               139 12.3 14.6 1.31 5.00 4.15
                                                            131
## 5: 2019
             1 1 4
                          50 133 12.3 15.6 1.41 5.00 4.31
                                                           134
##
## 8609: 2019
             12 31 18
                          50 330 6.9 8.4 3.45 10.00 7.47
## 8610: 2019
             12 31 19
                           50 329 5.6 7.2 3.26 10.00 7.57
                                                            100
## 8611: 2019
              12
                  31
                      20
                            50
                                294
                                    4.0
                                         5.6 3.00 10.81 7.62
                  31 21
             12
## 8612: 2019
                            50
                                328 3.8 5.2 2.52 10.00 7.34
                                                            103
## 8613: 2019
             12 31 22
                           50 298 6.3 8.8 2.83 10.00 8.00
                                                            96
##
        PRES ATMP WTMP DEWP
                           VIS TIDE
        <num> <num> <num> <num> <num> <num> <num> <num>
    1: 1023.7 3.6 7.0 1.5 99
##
                                 99
##
    2: 1021.0
             4.1
                  7.0 1.7
                             99
                                 99
## 3: 1019.3 4.1 7.0 2.6
                                 99
    4: 1017.3 4.2 7.0 3.3
##
                            99
                                 99
##
    5: 1014.8
             5.0 7.0 4.4
                            99
                                 99
## 8609: 999.3 3.1
                  7.1 3.1
                                 99
                             99
## 8610: 999.5
             3, 2
                  7.1
                      3.2
                             99
                                 99
## 8611: 1000.4 3.1 7.1 3.1
## 8612: 999.6
             2.9
                  7.0 2.7
                             99
                                 99
## 8613: 1000.4 3.2 6.9 2.3
                             99
                                 99
## Year: 2020
              MM DD hh
                             mm WDIR WSPD GST WVHT DPD APD MWD
##
        #YY
##
       1: 2019
              12
                  31
                        23
                            50
                                295 5.4 7.0 2.48 10.00 7.51
   2: 2020
##
                        0
                             50
                                276
                                     5.3 6.9 2.46 10.00 7.61
               1
                   1
                        1
##
   3: 2020
                             50
                                257 7.1 9.3 2.09 10.00 7.03
                  1
             1 1 2 50
1 1 3 50
##
     4: 2020
                                 247
                                     7.7 10.0 2.17 10.81 6.89
                                                             77
                                242 7.8 10.0 2.32 10.00 7.45
##
    5: 2020
                                                             80
±±
## 16099: 2020
              12
                  31 23 10
                                300
                                    8.0 9.8 99.00 99.00 99.00
             12 31 23 20
                                300 6.9 8.5 99.00 99.00 99.00
## 16100: 2020
                                301 7.1 9.2 99.00 99.00 99.00
## 16101: 2020
              12 31 23 30
                                                             999
## 16102: 2020
              12
                   31
                        23
                             40
                                 300
                                     7.7 10.0 0.63 3.33 3.30
                                                             304
             12 31 23
## 16103: 2020
                             50
                                300 8.1 10.0 99.00 99.00 99.00
##
         PRES ATMP WTMP DEWP VIS TIDE
##
        <num> <num> <num> <num> <num> <num>
    1: 1000.3 3.0 6.9 2.7
##
     2: 1000.4
              3.4
                   6. 9
                       2. 6
                             99
                                  99
##
     3: 1000.5
              3.6
                   6.9
                       2.7
                             99
                                  99
##
    4: 999.9 3.9 6.8 2.9
##
    5: 999.6 4.3 6.8 2.9
                             99
                                  99
## 16099: 1022.9 5.3 7.3 -2.9
                                  99
## 16100: 1023.1
              5.4 7.3 -2.3
                             99
                                  99
## 16101: 1023.1
              5.3 7.3 -2.5
                             99
                                  99
## 16102: 1023.4 5.2 7.3 -2.6
                             99
                                  99
## 16103: 1023.8 5.2 7.3 -2.7
                             99
```

```
±±
## Year: 2021
              MM DD hh mm WDIR WSPD GST WVHT DPD APD MWD
##
         #YY
##
        <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
     1: 2021 1 1 0 0 302 7.9 9.8 99.00 99.00 99.00
##
##
     2: 2021
                          0
                              10
                                  301
                                       7.8 10.1 99.00 99.00 99.00
                1
                     1
##
     3: 2021
                1
                    1
                          0
                              20
                                  301 8.1 10.1 99.00 99.00 99.00
                                                                999
##
    4: 2021
                   1 0
                              30
                                  305 7.3 9.0 99.00 99.00 99.00
                                                                999
##
     5: 2021
                    1
                        0
                             40
                                  302 7.2 9.4 0.57 3.45 3.22
                                                                294
                1
##
## 51559: 2021
              12 31 23 10
                                  160 1.8 2.4 99.00 99.00 99.00
                                                                999
## 51560:
         2021
                    31
                         23
                                  174
                                            2.5 99.00 99.00 99.00
               12
                              20
                                       2.0
                                                                999
                   31 23
                             30
## 51561: 2021
               12
                                  201 2.4 3.0 99.00 99.00 99.00
                                                                999
              12 31 23
12 31 23
## 51562: 2021
                              40
                                  204 2.4 2.9 0.43 10.00 5.98
                                                                111
## 51563: 2021
                              50
                                  221
                                       2.4 3.3 99.00 99.00 99.00
         PRES ATMP WTMP DEWP VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num> <num>
##
     1: 1024.1 5.2 7.4 -3.0
                              99
    2: 1024.2 5.1 7.4 -3.0
##
     3: 1024.4 5.1 7.4 -2.8
                               99
                                    99
     4: 1024.6 5.1 7.3 -2.8
##
                               99
                                    99
    5: 1024.7 5.0 7.3 -2.9
                               99
##
## 51559: 1015.0 999.0 8.5 999.0
                               99
                                    99
## 51560: 1015.0 999.0 8.5 999.0
## 51561: 1015.5 999.0
                    8.5 999.0
                               99
                                    99
## 51562: 1015.6 999.0
                    8.5 999.0
                               99
                                    99
## 51563: 1015.8 999.0 8.5 999.0
##
## Year: 2022
##
        #YY
               MM DD hh
                              mm WDIR WSPD GST WVHT DPD APD MWD
        ##
     1: 2022
              1 1 0 0 239 2.5 3.2 99.00 99.00 99.00
                                                                999
    2: 2022
##
                                            2.8 99.00 99.00 99.00
                          0
                              10
                                  235
                                       1.9
##
     3: 2022
              \begin{array}{cccc} 1 & 1 & 0 \\ 1 & 1 & 0 \end{array}
                              20
                                  207
                                       1.6
                                            2.4 99.00 99.00 99.00
                                  183 1.3 1.7 99.00 99.00 99.00
     4: 2022
                             30
##
                                                                999
##
    5: 2022 1 1 0 40 176 1.5 2.1 0.40 9.09 6.19
                                                                137
## 52525: 2022
              12 31 23 10
                                  999 4.1 4.9 99.00 99.00 99.00
## 52526: 2022
              12 31 23 20
                                  999 3.9 4.5 99.00 99.00 99.00
                                                                999
## 52527:
         2022
               12
                    31
                         23
                              30
                                  999
                                       4.1
                                            4.5 99.00 99.00 99.00
                                                                999
                   31
## 52528: 2022
                                  999 4.1 4.5 0.43 10.00 3.36
               12
                         23
                             40
## 52529: 2022
               12 31 23
                              50
                                  999 4.0 5.1 0.41 10.00 3.33
##
         PRES ATMP WTMP DEWP
                             VIS
                                  TIDE
         <num> <num> <num> <num> <num> <num> <num> <num>
##
     1: 1015.7 999 8.5 999
                               99
                                    99
##
     2: 1015.7
               999
                    8.5
                         999
                               99
                                    99
               999 8.5 999
    3: 1015.7
##
     4: 1015.5 999 8.5 999
                               99
                                    99
##
     5: 1015.5 999 8.5 999
                               99
                                    99
## 52525: 1011.5 999 7.6 999
                                    99
                               99
## 52526: 1011.4
               999
                    7.6
                         999
                               99
                                    99
## 52527: 1011.1
               999 7.6
                         999
## 52528: 1011.1
               999
                    7.6
                         999
                               99
                                    99
## 52529: 1011.0 999 7.6
                         999
                               99
                                    99
## Year: 2023
                              mm WDIR WSPD GST WVHT DPD APD MWD
##
        #YY
               MM DD
                         hh
##
        1: 2023
                         0 0
                                  999 4.3
                                            5. 0 99. 00 99. 00 99. 00
               1
                   1
##
    2: 2023
                          0
                              10
                                  999
                                       4.5
                                           5.4 99.00 99.00 99.00
                1
                     1
##
    3: 2023
                          0
                              20
                                  999 4.2 4.8 99.00 99.00 99.00
                                                                999
                   1
              1 1 0 30 999 4.2
1 1 0 40 999 3.9
##
         2023
     4:
                                            4.8 99.00 99.00 99.00
                                                                999
##
    5: 2023
                                            4.3 0.41 9.09 3.43
                                                                112
±±
## 52476: 2023
               12
                   31 23 10
                                  340
                                       4.9
                                            6.2 0.43 10.81 4.96
               12 31 23 20
                                            6.0 99.00 99.00 99.00
## 52477: 2023
                                  332 5.0
                                                                999
                                            6, 4, 99, 00, 99, 00, 99, 00
## 52478: 2023
               12 31 23 30
                                  331
                                       5. 2
                                                                999
## 52479: 2023
               12
                    31
                         23
                              40
                                  337
                                            6.9 0.50 10.00 3.73
                                       5.2
                                                                 99
              12 31 23
## 52480: 2023
                              50
                                  335
                                       5.1 6.7 99.00 99.00 99.00
##
         PRES ATMP WTMP DEWP VIS TIDE
##
          <\! num > <\! num >
    1: 1010.8 999.0 7.6 999.0 99
##
     2: 1010.6 999.0 7.6 999.0
                               99
                                    99
##
     3: 1010.2 999.0 999.0 999.0
                               99
                                    99
    4: 1010.0 999.0 7.6 999.0 99
     5: 1009.8 999.0 7.6 999.0
                               99
                                    99
## 52476: 1014.2 3.6 7.3 -2.5
                               99
## 52477: 1014.3 3.3 7.3 -3.0
                               99
                                    99
## 52478: 1014.4 3.2 7.3 -3.1
                               99
                                    99
## 52479: 1014.4 3.1 7.3 -3.0
                               99
                                    99
## 52480: 1014.6 3.0 7.2 -3.2
                               99
```

```
## [[1]]
         YY
              MM DD
                      hh
                           WD WSPD GST WVHT DPD APD
                                                        MWD
                                                            BAR
       <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
                                                        999 1030, 3
##
    1: 85
                  1
                      0
                           60
                                4
                                    5
                                                   99
## 2:
         85
                        1
                            80
                                      5
                                          99
                                               99
                                                    99
                                                        999 1030, 0
##
                           100
                                                        999 1030.1
    3:
         85
                   1
                                          99
                                               99
                                                    99
             1
                 1
                                    5
                      3
## 4:
                                                        999 1029.4
        85
                           100
                                          99
                                               99
                                                   99
                                 4
                                                        999 1028.6
## 5: 85
             1 1 4
                           110
                                    5
                                          99
                                               99
                                                   99
##
## 8715:
             12 31 19
                           200
                                 10 13
                                                    99
                                                        999 1008, 5
         85
                                          99
                                               99
                                                        999 1008 0
## 8716: 85
             12 31 20
                           200
                                11 15 99
                                               99
                                                   99
## 8717:
         85
             12
                  31
                       21
                           200
                                 10
                                     12
                                          99
                                               99
                                                    99
                                                        999 1008.7
                                9 12 99
## 8718: 85
            12
                  31 22
                                                        999 1009.0
                           210
                                               99
                                                   99
             12 31
                                             99
                                                        999 1009.1
## 8719: 85
                      2.3
                           210 8 10 99
                                                  99
##
       ATMP WTMP DEWP
                       VIS
      <num> <num> <num> <num> <num>
## 1: 4.7
## 2: 5.1
            6.7 999
                       99
             6.7
                  999
                       99
## 3: 5.6 6.6 999
## 4: 5.8 6.7
## 5: 5.8 6.7
                 999
    4: 5.8 6.7
                       99
                 999
                       99
## ---
## 8715:
        7.5 4.6
                  999
                       99
       7.9 4.7
## 8716:
                  999
                       99
## 8717: 7.4 4.8 999
## 8718:
        7.2 4.9
                  999
                       99
## 8719: 6.7
            4.4 999
                       99
##
## [[2]]
                           WD WSPD GST WVHT DPD APD MWD BAR
            MM DD hh
##
         YY
##
     <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1:
                  1 0
                           210
                                     11 99.0 99.0 99.0
## 2: 86
                                                        999 1009.3
                           210
                                 9
                                     10 99.0 99.0 99.0
              1
                   1
                        1
## 3: 86
             1 1 2
                           220
                               8
                                   10 99.0 99.0 99.0
                                                        999 1009. 2
             ##
    4:
        86
                           220
                                 6
                                     8 99.0 99.0 99.0
                                                        999 1009.3
                                    8 99.0 99.0 99.0
## 5: 86
                                6
                                                        999 1009.0
                           210
## ---
                  31 19
## 8164:
        86
             12
                           320
                                    10
                                         3.0 11.1
                                                  8.3
                                                        999 1017.5
## 8165: 86 12 31 20
                           350
                                        2.9 11.1
                                                  8.2
                                                        999 1018.8
                                8
                                 9
## 8166: 86
             12
                  31 21
                           320
                                     11
                                         2.7 11.1
                                                        999 1019.6
                                                  8.4
## 8167:
        86
             12
                  31
                       22
                           320
                                 8
                                     10 2.7 11.1
                                                  8.6
                                                        999 1021.0
## 8168: 86
                                    8 2.9 11.1 8.7 999 1022.5
             12 31
                      23
                           290
       ATMP WTMP DEWP
                      VIS
##
##
       <num> <num> <num> <num> <num>
## 1: 5.8 4.3 999
                       99
##
    2: 4.7 4.3
3: 4.0 4.3
                  999
                       99
                 999
                       99
## 4: 3.9 4.3 999
## 5: 3.9 4.3 999
                       99
## ---
## 8164: 4.0 6.2
                  999
## 8165:
        4.3
             6.2
                  999
                       99
## 8166: 4.4 5.9
                  999
                       99
## 8167: 3.9 5.9 999
                       99
## 8168: 3.2 5.9
                  999
                       99
##
## [[3]]
                            WD WSPD GST WVHT DPD APD MWD
         YY
             MM
                 DD
                      hh
       <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
##
## 1:
         87
             1 1
                       0
                           290 8.0 10.0 2.7 11.1 8.6
                                                        999 1023.5
##
    2:
                           290
                                7.0
                                                        999 1024.3
         87
                                    8.0
                                          2.4 10.0
                                                   8.0
             1 1
## 3: 87
                                                        999 1023.8
                           290 6.0 8.0
                                         2.5 11.1
                                                  8.3
                       2
## 4: 87
             1 1 3
                           300 6.0 7.0
                                         2.6 11.1 8.6
                                                        999 1024.1
##
    5:
        87
              1
                  1
                       4
                           290
                               5.0
                                    6.0
                                         2.7 12.5
                                                  8.7
                                                        999 1025.2
##
                               8.6 10.1
## 7598: 87
             12 31 19
                           177
                                                        999 1023, 4
                                         0.4 11.1
                                                  4.7
## 7599:
         87
              12
                  31
                       20
                           195
                                7.9
                                    9.3
                                         0.5 11.1
                                                  4.3
                                                        999 1023.6
             12
                  31 21
## 7600: 87
                           193
                               7.6
                                    9.0
                                         0.4 10.0 4.1
       87
87
             12
12
                           223 6.7 8.0 0.4 10.0 4.1
## 7601:
                  31 22
31 23
                                                        999 1022, 1
## 7602:
                           225 5.0 6.0 0.3 12.5 4.4 999 1021.3
       ATMP WTMP DEWP
                     VIS
##
      <num> <num> <num> <num>
## 1: 2.8
             5.9 999
                       99
## 2: 2.0
             5.9
                  999
##
    3:
        1.6
             5.9
                  999
                       99
       1.3
±±
    4:
             6.0
                 999
                       99
## 5: 1.0
                  999
             5.9
##
## 7598: 0.5
             5.1
                  999
                       99
## 7599: 0.1 5.1
                  999
                       99
## 7600:
        0.9
                  999
                       99
             5.1
## 7601:
       1.6
             5. 1
                  999
                       99
## 7602: 1.6 5.1 999
                       99
##
```

```
## [[4]]
             MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1: 88
             1 1 1 191 5.7 6.7 0.3 14.3 4.7
                                                      999 1020.1
## 2:
         88
                           182
                               8.0 9.3
                                        0.4 3.6
                                                      999 1018.9
                                                 3.8
    3:
         88
                           196
                               8.1 10.3
                                        0.4
                                             3.0
                                                 3.5
                                                      999 1019.0
                  1
                       3
              1
             1
## 4:
       88
                               7.8 8.7 0.4 2.9
                                                 3, 4 999 1019, 0
                  1
                       4
                          193
                 1 5
## 5: 88
                          182 6.9 8.9 0.3 2.6
                                                 3.7 999 1018.9
            1
##
## 8067: 88
            12 31 19
                          259
                               8.8 11.5 0.4 3.3
                                                      999 1013.9
                                                 3.4
## 8068: 88
            12 31 20
                          267
                               8.5 10.2 0.5 3.6 3.5
                                                      999 1014.7
## 8069:
         88
                      21
                           277
                               9.7 12.2
                                        0.6
                                             3.4
                                                      999 1015.5
             12
                  31
                                                 3.5
## 8070: 88
                     22
                          291 9.6 12.6 0.4 3.6 3.5
                                                      999 1016, 4
             12
                  31
## 8071: 88
            12 31
                     23
                          284 7.1 8.8 0.3 3.1 3.3 999 1017.9
##
       ATMP WTMP DEWP
                      VIS
      <num> <num> <num> <num> <num>
## 1: 3.9 5.1 999
                     99
##
    2:
        4.6
             5.1
                 999
                       99
## 3: 4.7 5.1 999
## 4: 4.4
## 5: 4.3
            5.1 999
                      99
            5.1 999
                      99
## 8067: 4.4 4.7 999
## 8068: 4.7 4.7 999
                      99
            4.7
                       99
## 8069: 4.3 4.7
                 999
## 8070:
       3.6 4.7 999
                       99
## 8071: 3.3 4.7
                 999
                       99
##
## [[5]]
        YY
                          WD WSPD GST WVHT DPD APD MWD BAR
             MM DD hh
##
    ##
              1 1 0
    1:
                          309
                              8.5 9.8
                                        0.2 2.9 3.3
## 2:
        89
              1
                  1
                       1
                          329
                               9.0 11.2
                                        0.3 2.9
                                                 3. 2
                                                      999 1020.1
## 3:
         89
                       2
                          326 7.4 9.9
                                        0.3 3.1 3.4
                                                      999 1022.3
##
    4:
        89
                  1
                       3
                           340
                               8.2 11.4
                                        0.2
                                             3.0
                                                 3.5
                                                      999 1022, 5
              1
                 1
                     4
## 5: 89
             1
                               9.6 11.4 0.3 3.2
                          349
                                                 3.4
                                                      999 1022.5
## ---
## 7929:
                  31
             12
                     19
                          158
                               7.1
                                   8.2
                                        1.0
                                            6.2
                                                 5.3
                                                      999 1013.9
                  31 20
## 7930: 89 12
                               7.0 8.2
                                        1.1
                                             7.1
                                                      999 1012.7
                          163
                                                 5.4
## 7931: 89 12
                  31 21
                          160 7.3 8.2 1.0 6.7 5.5
                                                      999 1011, 4
## 7932:
        89
             12
                  31
                      22
                           150
                               7.3
                                   8.1
                                        1.0
                                             7.1
                                                 5.6
                                                      999 1009.6
## 7933: 89
            12 31 23
                              7.5 8.4 1.0 7.1 5.6
                                                      999 1008.0
                          159
##
       ATMP WTMP DEWP VIS
##
       \langle num \rangle \langle num \rangle \langle num \rangle \langle num \rangle
## 1: 2.8 4.7 999
## 2: 1.7
## 3: 1.1
                 999
                      99
            4.7
            4.7
                 999
                      99
## 4: 0.2 4.7 999
## 5: -0.7 4.7 999
## ---
                      99
## 7929: 3.4 2.9
                 999
## 7930: 3.2 2.9
                 999
                       99
## 7931:
       3 7
            2.9
                 999
                       99
## 7932: 4.4 3.2 999
## 7933: 3.9 3.2 999
##
## [[6]]
##
         YY
             MM
                 DD
                      hh
                           WD WSPD GST WVHT DPD APD MWD
                                                          BAR
##
      ## 1: 90
            1 1 0
                          149 9.5 10.8 1.1 7.1 5.5
                                                      999 1004.9
##
    2:
         90
                       1
                           149
                               9.9 11.6
                                        1.2
                                             7.1
                                                 5.5
            1
                     2
                 1
## 3: 90
                               7.8 9.7 1.1 7.1
                          182
                                                 5.4
                                                      999 1001.8
## 4: 90
## 5: 90
            1 1 3
                          200 9.5 10.9 1.0 7.1 5.4
                                                      999 1000, 5
                          199
                               9.9 11.8
                                                      999 999.6
             1
                  1
                      4
                                        1.1
                                            7.1
                                                 5.5
## ---
                  31 19
31 20
## 8699: 90
             12
                          337 9.6 12.4 0.7 10.0 4.4
                                                      999 1023, 4
                                                      999 1024.9
## 8700:
         90
             12
                          322 10.3 12.8
                                        0.8
                                            6.2
                                                 4.7
                  31 21
## 8701: 90
            12
                          325 8.4 10.9 0.7 11.1 4.9
                                                      999 1026.1
            12
                          327 9.7 12.4 0.7 6.2 4.9
                                                      999 1027.2
## 8702: 90
                  31 22
## 8703:
        90
             12
                  31
                      23
                          326 9.0 12.0 0.7 7.1 5.2
                                                      999 1028.6
       ATMP WTMP DEWP VIS
##
      <num> <num> <num> <num> <num>
##
    1: 4.3
            3.3 999
                      99
## 2: 5.4
            3.3
## 3: 7.0
## 4: 8.8
            3. 2
                 999
                      99
            3.2
                 999
                      99
## 5: 8.6 3.2 999
## 8699: 0.0 6.4
                 999
                       99
## 8700: -0.5 6.4
                 999
                       99
## 8701: -1.0 6.4
                 999
                       99
## 8702: -2.1 6.4
                 999
                       99
## 8703: -2.6 6.4 999
```

```
## [[7]]
                          WD WSPD GST WVHT DPD APD MWD BAR
             MM DD hh
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1: 91
             1 1 0 322 10.6 12.8 0.8 7.7 5.0 999 1029.7
## 2:
         91
                           343 8.7 10.9
                                        0.8 5.9
                                                      999 1031.1
                       1
                                                 5.1
    3:
         91
                           336
                               7.3 10.7
                                        0.7
                                             7.1
                                                      999 1031, 7
              1
                  1
                       2
                                                 5.0
             1
## 4:
                           328 9.1 11.2 0.7 7.1
        91
                  1
                       3
                                                 5. 2
                                                      999 1031, 8
## 5: 91
                           334 10.6 12.3 0.8 6.7 4.7
                                                      999 1032.6
            1 1 4
## ---
## 8726: 91
            12 31 19
                           285
                              3.4 5.0 2.0 10.0
                                                 7.8
                                                      999 1035.0
## 8727: 91
            12 31 20
                           266 3.8 4.8 1.9 10.0 7.9
                                                      999 1034.8
## 8728:
                      21
                           269
                                   5.5
                                        1.7 10.0
                                                      999 1034.5
         91
             12
                  31
                               4.4
                                                 7.6
## 8729: 91
                     22
                           263 4.1 5.4 1.9 9.1 7.9
                                                      999 1034, 4
             12
                  31
## 8730: 91
            12 31
                      23
                           254 4.5 5.7 1.6 8.3 7.6
                                                      999 1034, 5
##
       ATMP WTMP DEWP
                     VIS
      <num> <num> <num> <num> <num>
## 1: -3.0 6.4 999
                     99
##
    2: -3.4
             6.4
                 999
                       99
## 3: -4.1 6.4 999
## 4: -4.3 6.4 999
## 5: -4.4 6.4 999
                      99
                       99
## 8726: 0.8 5.5 999
                       99
## 8727:
       1.6
            5.5
                 999
                       99
## 8728: 2.0 5.5
                 999
## 8729: 2.1
            5.6
                 999
                       99
## 8730: 2.3
            5.6 999
                       99
## [[8]]
        YY
                           WD WSPD GST WVHT DPD APD MWD
             MM DD hh
                                                          BAR
##
    ##
    1:
              1 1 1
                           249
                              5.9
                                   7.0
                                        1.2 7.7
                                                 7.3
## 2:
        92
              1
                  1
                       2
                           260
                               5. 6
                                   6.3
                                        1.1 7.7
                                                 7.5
                                                      999 1034.3
## 3:
         92
                           269 5.0 5.9 1.1 11.1
                                                 7.6
                                                      999 1034, 2
                       3
##
    4:
        92
                  1
                       4
                           281
                               5.2
                                   6.4
                                        1.0 10.0
                                                 8.1
                                                      999 1034, 1
              1
                1
                     5
## 5: 92
             1
                                   6.4 1.0 10.0
                          280
                               5.4
                                                 8.1
                                                      999 1033.5
## ---
                  31 19
## 8732:
             12
                           264
                               3.6
                                   4.3
                                        1.3 8.3
                                                 7.5
                                                      999 1007.0
                  31 20
## 8733: 92 12
                          248
                               2.5
                                   3. 1
                                        1.3 10.0
                                                      999 1006.3
                                                 7.7
## 8734: 92 12 31 21
                          229
                               6.7 7.4 1.1 10.0 7.2
                                                      999 1005 5
## 8735:
        92
             12
                  31
                      22
                           236
                               8.8
                                   9.8
                                        1.0 10.0
                                                 7.4
                                                      999 1004.8
## 8736: 92
            12 31 23
                           252 5.6 6.8 1.0 10.0 7.5
                                                      999 1005.6
##
       ATMP WTMP DEWP VIS
##
       \langle num \rangle \langle num \rangle \langle num \rangle \langle num \rangle
## 1: 2.1 5.6 999
## 2: 1.7
## 3: 1.7
                 999
                       99
             5.6
            5.6
                 999
                       99
## 4: 1.7 5.6 999
## 5: 1.6 5.6 999
## ---
                      99
## 8732: 3.2 4.7
                 999
       3.9 4.7
## 8733:
                 999
                       99
## 8734:
       5.5 4.7
                 999
                       99
## 8735: 6.4 4.7 999
## 8736:
       6.3 4.7 999
##
## [[9]]
##
         YY
             MM
                 DD
                      hh
                           WD WSPD GST WVHT DPD APD MWD
                                                           BAR
##
      ## 1: 93
            1 1 0
                           241 7.6 8.6
                                        0.9 10.0 7.4
                                                      999 1006.3
##
    2:
         93
                       1
                           245
                               7.3
                                    8.2
                                        0.8
                                            10.0
                                                  7.7
                     2
             1 1
## 3: 93
                          243 8.1
                                   8.9 0.8 10.0
                                                 8.0
                                                      999 1006.5
## 4: 93 1 1 3
## 5: 93 1 1 4
                          261 7.7 8.8 0.7 9.1 7.9
                                                      999 1006, 5
                           269
                               7.8
                                   8.6
                                        0.8
                                            9.1
                                                      999 1007.0
                  1 4
                                                 7.8
## ---
                 31 19
31 20
## 8689: 93
             12
                           228 9.7 12.1 0.8 3.4
                                                 3.4
                                                      217 1018.0
## 8690:
         93
             12
                           233 10.1 12.9
                                        0.8
                                             3.3
                                                 3.4
                                                      219 1018.6
                  31 21
## 8691: 93
            12
                           255 10.8 14.4 0.9 3.4 3.4
                                                      241 1019.7
            12
## 8692: 93
                          252 9.8 12.6 0.9 3.7 3.5
                                                      256 1020, 7
                  31 22
## 8693:
        93
             12
                  31
                      23
                           260 9.4 13.3 0.8 3.4 3.4
                                                      267 1021.7
       ATMP WTMP DEWP VIS
##
      <num> <num> <num> <num> <num>
##
    1: 6.7
            4.7 999
                     99.0
## 2: 7.1
            4.7 999
## 3: 7.4 4.4 999 99.0
## 4: 7.8 4.4 999 99.0
## 5: 7.9 4.4 999 99.0
## 8689: -1.2 5.6
                 999 21.7
                 999 21.9
## 8690: -0.8 5.6
## 8691: -0.6
            5.6
                 999 24.1
## 8692: -0.8 5.6 999 25.6
## 8693: -1.1 5.5 999 26.7
```

```
## [[10]]
                        MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
           <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
       1: 94
                       1 1 0 248 9.9 12.2 0.7 3.6 3.4 267 1022.5
## 2:
                                                252 10.3 13.3
                                                                         0.7 3.4
                                                                                                  269 1022.7
                94
                                          1
                                                                                        3.4
       3:
                94
                                                259
                                                      11.7 14.7
                                                                         0.7
                                                                                3.4
                                                                                                  270 1023.4
                                 1
                                          2
                                                                                         3.4
                         1
                       1
## 4:
                                                                               4.0 3.7
               94
                                 1
                                          3
                                                261 11.8 14.3 0.9
                                                                                                  265 1023, 7
## 5: 94
                                                262 10.4 12.6 0.9 4.0 3.5 271 1024.1
                       1
                               1 4
##
## 8683: 94
                       12 31 19
                                                160
                                                       5, 7 6, 7 0, 4 10, 0
                                                                                                   74 1026.6
                                                                                        5.7
## 8684: 94
                       12 31 20
                                                183 5.0 6.3
                                                                        0.4 8.3 4.5
                                                                                                  72 1026, 5
## 8685:
                94
                                        21
                                                191
                                                        7.2
                                                                9.1
                                                                         0.4 10.0
                                                                                                   48 1025.8
                        12
                                 31
                                                                                         4.2
                                       22
## 8686: 94
                                                      5.9 6.8 0.4 2.5 3.6
                                                                                                 163 1025, 7
                       12
                                 31
                                                192
                                                186 7.7 9.9 0.5 2.9 3.3 171 1025.2
## 8687: 94
                       12 31
                                       23
## ATMP WIMP DEN:
## <a href="mailto:rnum">rnum</a> <a href="m
## 1: -1.1 5.5 999 26.7
##
       2: -1.5
                       5.5
                               999
                                      26.9
## 3: -1.4 5.5 999 27.0
## 4: -1.6 5.5 999 26.5
## 5: -1.4 5.5 999 27.1
       5: -1.4 5.5 999 27.1
## 8683: 2.8 999.0 999
                                       7.4
## 8684:
             4.3 999.0 999
                                       7.2
## 8685: 4.7 999.0 999
                                      4.8
## 8686: 4.0 999.0 999 16.3
## 8687: 3.6 999.0 999 17.1
##
## [[11]]
                                                WD WSPD GST WVHT DPD APD MWD
                YY
                      MM DD hh
##
       YY MM ען חוו עש אוט אינט עונאן עש הוו עע אוי ווו (int> (int> (int> (int> (int> (int> (num> (num> (num> (num> (num> (num> 2.7.2.3.3.200.1024.4
##
                        1 1 0
       1:
                                                198
                                                       7.8 9.8
                                                                         0.6 2.7
                                                                                        3.3
## 2:
                95
                          1
                                 1
                                          1
                                                206 8.8 11.6 0.6
                                                                                3. 0
                                                                                        3.3
                                                                                                  217 1023.8
## 3:
                95
                                                204 9.9 12.0 0.7 3.1 3.3
                                                                                                  226 1022, 5
                                          2
##
       4:
                95
                                 1
                                          3
                                                205 11.5 14.2
                                                                         0.8
                                                                                3.3
                                                                                        3.3
                                                                                                  217 1021.5
                         1
                                      4
                       1
                               1
## 5: 95
                                                215 10.5 13.2 0.9 3.7
                                                                                        3.6 229 1021.4
## ---
                                31 19
## 8656:
                       12
                                                245
                                                       4.3
                                                                5.3
                                                                         0.2 12.5
                                                                                        5.8
                                                                                                   74 1014.2
                                31 20
## 8657: 95 12
                                                                        0.2 12.5
                                                                                                   72 1014.3
                                                245
                                                       4.6 5.6
                                                                                        4.5
## 8658: 95 12
                                31 21
                                                231 3.3 4.2 0.2 14.3 4.8
                                                                                                  77 1013, 5
## 8659:
                95
                        12
                                 31
                                        22
                                                232
                                                        3.2
                                                               3.7
                                                                         0.2 12.5
                                                                                         6.1
                                                                                                   82 1014.3
                      12 31 23
## 8660: 95
                                                226 3.3 4.1 0.2 14.3 6.4
                                                                                                  77 1014.2
##
            ATMP WTMP DEWP VIS
##
             \langle num \rangle \langle num \rangle \langle num \rangle \langle num \rangle
## 1: 3.2 999.0 999 20.0
## 2: 3.5 999.0 999 21.7
## 3: 4.1 999.0 999 22.6
## 4: 5.1 999.0 999 21.7
## 5: 4.8 999.0 999 22.9
## ---
## 8656: 3.0 5.5 999
             3.2 5.5 999
## 8657:
                                       7.2
## 8658·
             3 2
                       5. 5
                              999
                                       7.7
## 8659: 3.6 5.5 999
                                      8.2
## 8660: 3.6 5.5 999
                                        7.7
##
## [[12]]
##
                YY
                        MM
                               DD
                                        hh
                                                 WD WSPD GST WVHT DPD APD MWD
                                                                                                          BAR
##
           ## 1: 96
                       1 1 0
                                                218 2.9 3.4 0.16 12.50 6.36 86 1013.9
##
       2:
                                          1
                                                225
                                                        2.8
                                                                3.2 0.17 12.50 7.35
                       1
                              1
                                       2
## 3: 96
                                                234
                                                        1.9 2.3 0.18 12.50 7.21
                                                                                                   74 1013.5
## 4: 96
## 5: 96
                       1 1 3
                                                233 2.8 3.8 0.17 12.50 6.93
                                                                                                  77 1013.3
                                                263
                                                                3.8 0.15 12.50 7.36
                        1
                                1
                                       4
                                                        3.2
                                                                                                   89 1013.4
## ---
                                31 19
31 20
## 8948: 96
                       12
                                                337 7.6 9.8 0.86 4.55 3.85
                                                                                                   49 1021, 2
## 8949:
                96
                        12
                                                334
                                                        8.0 10.7 1.00 5.26 3.83
                                                                                                   49 1021.1
                                 31 21
## 8950: 96
                                                326 8.6 10.5 1.23 5.00 4.09
                       12
                                                                                                  48 1021.9
## 8951: 96
                       12
                                                323 11.0 13.6 1.31 5.88 4.19
                                                                                                  47 1023, 1
                                31 22
## 8952:
               96
                        12
                                31
                                         23
                                                332 9.4 12.2 1.32 5.26 4.13
                                                                                                  47 1024.1
## ATMP WTMP DEWP VIS
##
           <num> <num> <num> <num> <num>
##
       1: 3.6
                       5.5 999
                                         99
## 2: 3.5
                       5.5
## 3: 3.2
## 4: 3.5
                       5. 5
                               999
                                         99
                       5.5
                               999
                                         99
## 5: 3.2 5.5 999
##
## 8948: -7.0
                      6.3
                               999
                                         99
## 8949: -7.1
                       6.3
                               999
## 8950: -7.2
                       6.3
                               999
                                         99
## 8951: -7.6
                      6.3
                               999
                                         99
## 8952: -8.0 6.3 999
```

```
## [[13]]
              MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1:
         97
             1 1 0 322 10.7 13.7 1.27 4.17 4.13
                                                        5 1024.9
## 2:
         97
                            312 10.8 13.8 1.41 5.26 4.14
                                                         40 1026.2
                        1
    3:
         97
                            323 11.4 14.0 1.43 4.55 4.25
                                                         355 1026.8
                   1
                        2
               1
             1
## 4: 97
                            336 11.4 14.2 1.57 5.56 4.40
                   1
                        3
                                                         42 1027, 3
## 5: 97
                            333 10.9 14.0 1.83 6.67 4.76
                                                         45 1027.6
             1
##
## 5708: 97
             12 31 19
                            274 10.4 13.5 1.06 3.85 4.07
                                                         999 1004.0
## 5709: 97
             12 31 20
                            290 9.7 12.5 1.02 12.50 4.03
                                                         999 1005, 6
## 5710:
         97
                       21
                            289
                               10.1 12.0 1.04 11.11 4.27
                                                         999 1007.7
              12
                   31
## 5711: 97
                            305 10.4 13.4 0.91 12.50 3.93
                                                         999 1009.7
             12
                   31
                       22
## 5712: 97
             12 31
                       23
                            304 13.6 16.9 1.28 4.00 3.96
                                                         999 1011, 5
##
        ATMP WTMP DEWP
                       VIS
    ## 1: -8.3 6.3 999
                      99
##
    2: -9.1
             6.3
                  999
                        99
## 3: -9.2 6.3 999
## 4: -9.7 6.3 999
## 5: -10.6 6.3 999
                       99
                        99
## 5708: -1.5 5.9 999
## 5709: -1.8 5.6 999
                        99
                        99
## 5710: -3.1 5.5
                  999
## 5711: -3.7
             5.2 999
                        99
## 5712: -4.8
             5.1
                  999
                        99
## [[14]]
         YY
                           WD WSPD GST WVHT DPD APD MWD BAR
             MM DD hh
##
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
              1 1 0
    1:
                            295 10.8 15.4 1.34 4.35 4.24
## 2:
         98
               1
                   1
                        1
                            287 10.6 13.9 1.29 4.35 4.11
                                                         999 1015. 4
## 3: 98
                            286 11.7 15.5 1.12 4.00 4.00
                                                         999 1016.3
                        2
##
    4:
         98
                   1
                        3
                            286 11.9 15.0 1.04 4.00 3.94
                                                         999 1017.1
              1
                      4
## 5: 98
             1
                  1
                           295 12.2 14.7 1.26 4.17 4.02 999 1017.9
## ---
                   31
## 8780:
             12
                      19
                            242
                                6.9
                                     9.1 0.56 11.11 3.56
                                                         999 1017.8
                   31 20
## 8781: 98 12
                            242
                                6.6 8.6 0.53 2.86 3.58
                                                         999 1017.7
             12
## 8782: 98
                  31 21
                           229 6.2 8.5 0.43 2.94 3.48
                                                         999 1017.9
## 8783:
         98
              12
                   31
                       22
                            207
                                5.6
                                     7.7 0.39 10.00 4.25
                                                         999 1017.7
## 8784: 98
             12 31
                      23
                            213 5.2 7.5 0.35 11.11 4.81
                                                         999 1017.4
       ATMP WTMP DEWP VIS
##
##
       <num> <num> <num> <num> <num>
## 1: -5.9 5.1 999
## 2: -6.5
## 3: -7.0
                  999
                        99
             5. 1
    3: -7.0
             5.2
                  999
                        99
## 4: -7.6 5.6 999
## 5: -8.1 5.6 999
                       99
## ---
## 8780: -5.5 5.9
                  999
## 8781: -5.1
             5.8
                  999
                        99
## 8782: -4.6
             5.6
                  999
                        99
## 8783: -4.4 5.8 999
## 8784: -4.5 5.6 999
##
## [[15]]
##
       YYYY
              MM
                  DD
                       hh
                            WD WSPD GST WVHT DPD APD MWD
                                                             BAR
##
      ## 1: 1999
             1 1 0
                           221 5.4 7.2 0.33 11.11 5.25
                                                         999 1017.4
    2: 1999
                   1
                        1
                            218
                                5.6
                                     7.3 0.31 11.11 5.51
                  1 2
## 3: 1999
             1
                                                         999 1015.8
                           226 5.7
                                    7. 0 0. 32 12. 50 6. 53
## 4: 1999
             1 1 3
                           228 5.7 7.3 0.31 11.11 6.17
                                                         999 1015.3
##
    5: 1999
                           237
                                     7.7 0.39 11.11 5.02
              1
                  1 4
                                5.9
                                                         999 1015.0
## ---
             12 31 19
12 31 20
## 8344: 1999
                           340 4.9 6.5 0.65 9.09 3.92
                                                         999 1017.2
                                                         999 1017.4
## 8345: 1999
                            350
                                4.5
                                     5.9 0.58 4.17 4.04
                   31 21
## 8346: 1999
             12
                           346 3.2 4.6 0.58 11.11 4.24
                                                         999 1018.0
## 8347: 1999
                           360 3.3 4.1 0.51 10.00 4.21
                                                         999 1018, 1
             12 31 22
## 8348: 1999
              12
                   31
                       23
                            5 1.2 2.3 0.51 10.00 4.40
                                                         999 1018.7
## ATMP WTMP DEWP VIS
##
      <num> <num> <num> <num> <num>
## 1: -4.3
             5.6 999.0
## 2: -4.0
             5.7 999.0
## 3: -3.9
## 4: -3.9
             5. 7 999. 0
                        99
    4: -3.9
             5.7 999.0
                        99
## 5: -3.8 5.6 999.0
## ---
## 8344: 0.1
             5.9 -8.0
## 8345: 0.5 5.9 -8.2
## 8346:
        0.8
             5.9 -5.5
                        99
## 8347: 0.9 5.9 -4.3
                        99
## 8348: 1.2 5.9 -3.5
```

```
## [[16]]
            V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12
##
      ##
    1: 2000
             1 1 0 315 0.8 1.5 0.54 10.00 4.55
                                                        999 1019. 2
## 2: 2000
                           271
                                0.7
                                    1.9 0.53 4.55 4.61
                                                        999 1020.3
                        1
    3: 2000
                        2
                           232
                                2.3
                                    3.1 0.52 4.76 4.78
                                                        999 1020, 4
                   1
                 1
             1
## 4: 2000
                               2, 9 3, 8 0, 52 10, 00 4, 86
                        3
                           236
                                                        999 1021.0
## 5: 2000
             1 1 4
                           232 4.1
                                    4.9 0.50 10.00 5.00
                                                        999 1021, 2
## 5108: 2000
             7 31 19
                           59 3.3 3.8 0.61 9.09 4.68
                                                        999 1024.1
             7 31 20
7 31 21
## 5109: 2000
                           45 3.9 4.7 0.59 9.09 4.94
                                                        999 1023, 6
## 5110:
       2000
                            56
                                3.8 4.5 0.53 8.33 4.71
                                                        999 1023.5
             7 31
                      22
## 5111: 2000
                            63 4.3 5.1 0.56 8.33 4.94
                                                        999 1023, 4
        2000 7 31
V13 V14 V15
                      23
## 5112: 2000
                           56 4.2 5.0 0.61 8.33 5.20
                                                        999 1022, 8
                      V16
##
       <num> <num> <num> <num> <num>
## 1: 1.1 5.9 -3.6 99
##
    2:
        1.2
             5.9 -3.6
## 3: 1.5 5.8 -3.3
## 4: 1.3 5.9 -3.6
## 5: 0.9 5.9 -4.0
                       99
                       99
## 5108: 17.2 17.6 16.0
                       99
## 5109: 17.2 17.6 16.0
                       99
## 5110: 17.2 17.6 15.9
## 5111: 17.2 17.6 16.0
                       99
## 5112: 17.2 17.6 16.0
                       99
## [[17]]
       YYYY
             MM DD hh
                           WD WSPD GST WVHT DPD APD MWD BAR
##
##
     <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
             1 1 0
    1: 2001
                           255 13.2 16.4 1.49 4.76 4.30
## 2: 2001
              1
                   1
                        1
                           255 14.3 17.5 1.50 4.35 4.17
                                                        999 1002.0
## 3: 2001
                           263 15.8 19.9 1.68 4.76 4.31
                                                        999 1002, 4
                        2
##
    4: 2001
                   1
                        3
                           267 14.4 17.5 1.64 5.00 4.37
                                                        999 1003, 6
              1
                 1
             1
                      4
## 5: 2001
                           270 13.9 17.6 1.55 4.76 4.21 999 1004.6
## ---
                  31 19
## 8756: 2001
             12
                           248
                               9.3 11.1 0.67 3.45 3.21
                                                        999 1009.9
             12
                  31 20
## 8757: 2001
                           242 8.9 10.7 0.69 3.23 3.15
                                                        999 1010.3
## 8758: 2001
             12 31 21
                           240 10.5 99.0 99.00 99.00 99.00
                                                        999 9999 0
## 8759: 2001
              12
                  31
                       22
                           244 8.6 99.0 99.00 99.00 99.00
                                                        999 9999 0
             12 31 23
## 8760: 2001
                           244 8.4 11.3 0.77 3.57 3.31 999 1011.9
   ATMP WTMP DEWP VIS TIDE
##
##
       <num> <num> <num> <num> <num> <num>
## 1: -1.5 4.3 -7.6 99
## 2: -1.9 4.3 -7.1
## 3: -1.9 4.3 -7.3
                       99
                            99
    3: -1.9 4.3 -7.3
                       99
                            99
## 4: -2.1 4.3 -7.2 99 99
## 5: -2.2 4.4 -8.3 99
## ---
                           99
## 8756: -0.3 7.0 -8.7
                            99
## 8757: 0.1 7.0 -8.9
                       99
                            99
## 8758: 999.0 999.0 999.0
                       99
                            99
## 8759: 999.0 999.0 999.0
## 8760: 0.1 6.7 -8.9
                            99
##
## [[18]]
##
       YYYY
             MM
                 DD
                       hh
                           WD WSPD GST WVHT DPD APD MWD
                                                            BAR
##
      ## 1: 2002
             1 1 0
                           227 8.5 10.4 0.60 3.23 3.13
                                                        999 1012.9
    2: 2002
                   1
                        1
                           234
                                9.5 11.5 0.66 3.13 3.09
                 1
                      2
## 3: 2002
             1
                           232 9.7 12.4 0.73 3.57 3.26
                                                        999 1013.9
## 4: 2002
             1 1 3
                           255 10.5 12.5 0.80 3.70 3.37
                                                        999 1013, 5
##
                           261 10.1 12.4 0.79 3.70 3.45
    5: 2002
              1
                  1
                      4
                                                        999 1013.4
## ---
             12 31 19
12 31 20
## 8756: 2002
                           183 4.5 5.8 0.96 5.56 4.16
                                                        999 1015.0
                                                        999 1014.6
## 8757: 2002
                           313
                                2.0
                                    2.4 0.93 4.55 4.31
                  31 21
## 8758: 2002
             12
                           316 2.0 2.5 0.98 6.25 4.62
                                                        999 1014.7
             12
## 8759: 2002
                           330 2.6 3.2 0.99 6.67 4.98
                                                        999 1014.3
                  31 22
## 8760: 2002
             12
                  31
                       23
                           322
                                0.8 1.8 1.11 7.14 5.12
                                                        999 1013.6
## ATMP WTMP DEWP VIS TIDE
##
      <num> <num> <num> <num> <num> <num>
## 1: 0.0 6.7 -8.4 99
                           99
## 2: 0.0
            6.7 -8.3
## 3: -0.5 6.7 -8.1
## 4: -0.4 6.7 -8.1
                       99
                            99
    4: -0.4 6.7 -8.1
                       99
                            99
## 5: -0.4 6.7 -8.5
## 8756: 5.1
             6.0 4.8
                            99
## 8757: 4.4 6.0 4.2
                       99
                            99
       4.8 6.0 4.6
4.7 6.0 4.6
## 8758:
                       99
                            99
## 8759:
                       99
                            99
## 8760: 4.5 6.0 4.4 99
                            99
```

```
## [[19]]
              MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
  YYYY
##
      ##
    1: 2003
             1 1 0 153 0.6 1.2 0.99 6.67 5.03
                                                       999 1012.8
## 2: 2003
                           183 3.4
                                    3.8 0.93 6.67 4.92
                                                       999 1012.6
                        1
    3: 2003
                        2
                           180
                               4.2
                                    5.0 0.89 6.25 4.91
                                                       999 1011.8
                   1
              1
             1
## 4: 2003
                  1
                       3
                           207
                               6.4
                                    7.4 0.80 6.67 4.89
                                                       999 1011.1
## 5: 2003
                 1 4
                           204 7.3 8.2 0.70 6.67 4.73
                                                       999 1010, 3
             1
##
## 8755: 2003
             12 31 19
                           276 5.4
                                   6.5 0.48 3.23 3.09
                                                       999 1019.0
## 8756: 2003
             12 31 20
                           237 3.7
                                    4.3 0.28 2.86 3.03
                                                       999 1018.9
## 8757:
       2003
                      21
                           208
                                    3.6 0.18 2.50 3.24
                                                       999 1018.1
              12
                  31
                                3.0
                     22
## 8758: 2003
                           185
                              4.3 5.2 0.00 0.00 0.00
                                                       999 1017.4
             12
                  31
## 8759: 2003
             12 31
                      23
                          161 4.6 5.3 0.00 0.00 0.00
                                                       999 1016, 6
##
       ATMP WTMP DEWP VIS
                          TIDE
       <num> <num> <num> <num> <num> <num>
## 1: 4.7 6.0 4.6 99
                           99
##
    2:
        4.7
             6.0
                 4.6
                       99
                            99
## 3: 5.0 6.0 4.9
                      99
                            99
## 4: 5.9
## 5: 6.0
             6.0 5.8
                       99
                            99
    5: 6.0
            6.0 5.3
                       99
                            99
## 8755: 5.5 5.2 -1.4
                            99
                       99
## 8756: 5.7
            5.2 0.0
                       99
                            99
## 8757: 5.6 5.2 0.7
## 8758: 5.9
             5.2 0.0
                       99
                            99
## 8759: 5.5 5.2 -0.3
                       99
                            99
##
## [[20]]
       YYYY
             MM DD hh WD WSPD GST WVHT DPD APD MWD
##
                                                           BAR
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
              1 1 0
    1: 2004
                           184 8.6 10.5 0.17 2.50 3.03
## 2: 2004
              1
                   1
                       1
                           214 9.7 11.7 0.43 2.78 2.89
                                                       999 1014. 2
## 3: 2004
                           227 9.9 12.2 99.00 99.00 99.00
                                                       999 1013.8
                        2
##
    4: 2004
                   1
                       3
                           232 11.8 14.5 0.96 3.45 3.34
                                                       999 1013.0
              1
                 1
             1
                     4
## 5: 2004
                           232 9.2 11.3 1.00 3.57 3.43
                                                       999 1013.2
## ---
                  31 19
## 8757: 2004
             12
                           153
                               7.5
                                    8.8 0.96 4.35 3.85
                                                       999 1025.9
             12
                  31 20
## 8758: 2004
                              6. 2 7. 4 0. 96 4. 76 3. 92
                                                       999 1025.6
                           165
## 8759: 2004
             12 31 21
                           172 6.4 7.2 0.96 4.35 4.00
                                                       999 1025 0
## 8760: 2004
             12
                  31
                       22
                           175
                                8.1
                                    9.9 0.87 4.76 3.91
                                                       999 1023.8
            12 31 23
## 8761: 2004
                           176
                               9.2 10.4 0.88 4.17 3.69
                                                       999 1023.0
##
       ATMP WTMP DEWP VIS TIDE
##
       <num> <num> <num> <num> <num> <num>
## 1: 5.2 5.2 999.0
##
    2: 5.1
3: 4.8
             5.2 0.0
                       99
                            99
##
             5.2 -0.8
                       99
                            99
## 4: 5.1 5.2 -0.2 99
                            99
## 5: 5.2 5.2 -0.7
## ---
                     99
                           99
## 8757: 6.3 6.3 4.9
                            99
## 8758: 6.6 6.3 5.4
                       99
                            99
## 8759·
       7.4
            6.3 5.9
                       99
                            99
## 8760: 7.4 6.3 6.3
                       99
## 8761: 7.4 6.3 6.7
                       99
                            99
##
## [[21]]
##
       YYYY
             MM
                  DD
                      hh
                               WD WSPD GST WVHT DPD APD
                           mm
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2005
             1 1 0
                            0 187
                                    9. 0 10. 1 0. 85 3. 23 3. 58
                                                            999
##
    2: 2005
                   1
                        1
                             0
                                193
                                    8.3 10.5 0.78 3.85 3.57
                 1 2
## 3: 2005
             1
                            0 212
                                    7.0 8.9 0.90 3.13 3.50
                          0 210 8.8 11.2 1.00 4.17 3.70
## 4: 2005
             1 1 3
                                                            999
##
    5: 2005
                            0 237
                                    6.8
                  1 4
                                         8.0 1.00 3.33 3.79
                                                            999
## ---
                           0 56 4.3 5.7 0.98 11.11 5.64
             12 31 19
12 31 20
12 31 21
## 8704: 2005
                                                            999
## 8705: 2005
                            0
                                56
                                    3.4 4.5 1.06 10.00 5.49
                                                            999
             12
                                52 2.9 4.7 1.07 11.11 5.65
## 8706: 2005
                           0
                                                            999
## 8707: 2005
             12
                                59 5.1 6.7 1.03 11.11 5.49
                  31 22
                            0
                                                            999
## 8708: 2005
             12
                  31
                      23
                            0
                                52 4.5 7.2 1.00 11.11 5.28
                                                            999
        BAR ATMP WTMP DEWP VIS TIDE
##
       ##
    1: 1022.6 7.6 6.3 7.1
                                99
                            99
## 2: 1022.1
             8.3 6.3 6.1
##
    3: 1022.0 8.2 6.3 5.2
4: 1021.1 8.7 6.3 5.1
                             99
                                 99
##
                             99
                                 99
  5: 1021.4 7.9 6.3 5.0
## 8704: 1011.0 0.4 5.8 999.0
                             99
                                 99
## 8705: 1011.1 0.4 5.9 999.0
                                 99
99
                                 99
## 8707: 1011.1 1.1 5.9 -2.7
                             99
                                 99
## 8708: 1011.4 1.4 5.8 -0.8
                             99
                                 99
```

```
## [[22]]
    YYYY
                                                      WD WSPD GST WVHT DPD APD MWD
                        MM DD hh
                                              mm
##
           <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
       1: 2006
                       1
                              1 0
                                              0 74 5.3 6.1 0.92 11.11 5.01
## 2: 2006
                                                 0
                                                        83
                                                             4.9
                                                                      6.0 0.89 10.00 5.09
                                         1
       3: 2006
                                         2
                                                 0
                                                        82
                                                              5.3 6.9 0.84 11.11 4.78
                                 1
                         1
## 4: 2006
                                                             8.9 10.9 0.99 11.11 4.32
                        1
                                1
                                        3
                                                 0
                                                       62
                                                                                                       999
## 5: 2006
                                                0 56 9.8 11.5 1.40 4.55 4.16
                              1 4
## 8719: 2006
                      12 31 19
                                              0 305
                                                             4.5 6.0 0.57 4.55 3.49
                                                                                                       999
                      12
## 8720: 2006
                               31 20
                                              0 321 3.2 4.8 0.47 4.55 3.69
                                                                                                       999
## 8721:
             2006
                                       21
                                                 0
                                                      276
                                                                       5.0 0.40 4.35
                        12
                                31
                                                              3.1
                                                                                             4.09
                                                                                                       999
                                31 22
## 8722: 2006
                                                0 313 3, 3 4, 4 0, 41 5, 88 4, 26
                       12
                                                                                                       999
## 8723: 2006
                      12 31 23
                                                0 303 2.8 3.7 0.39 5.56 4.30
                                                                                                       999
##
              BAR ATMP WTMP DEWP
                                              VIS TIDE
             ## 1: 1011.8 0.6 5.8 -0.7 99
                                                       99
##
       2: 1011.5
                        0.7
                                5.8 0.4
                                                 99
                                                         99
## 3: 1010.7 1.3 5.8 0.4
       4: 1009.6 1.7 5.8 1.3
##
                                                 99
                                                         99
       5: 1009.3 1.1
                               5.8 0.4
                                                 99
                                                         99
## 8719: 1028.8 2.2 7.1 999.0
                                                         99
                                                 99
## 8720: 1028.8
                       2.7
                               7.1 999.0
                                                 99
                                                         99
## 8721: 1028.9 3.2 7.1 999.0
## 8722: 1029.0 3.5 7.1 999.0
                                                 99
                                                         99
## 8723: 1028.9 3.8 7.1 999.0
                                                 99
                                                         99
## [[23]]
                                              mm WDIR WSPD GST WVHT DPD APD MWD
             #YY
                       MM DD hh
##
##
           <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
                               1 0
       1: 2007
                                                0 209
                                                             2.2
                                                                      3.1 0.39 5.00 4.32
## 2: 2007
                         1
                                 1
                                        1
                                                 0
                                                      184
                                                              1.6 2.3 0.37 4.76 4.33
                                                                                                       999
## 3: 2007
                                                 0 \quad 173 \quad 2. \, 8 \quad 4. \, 0 \quad 0. \, 33 \quad 4. \, 17 \quad 4. \, 24
                                         2
                              1 3
1 4
##
        4: 2007
                                                 0
                                                      183
                                                              5.6
                                                                      6.7 0.32 4.17 4.19
                        1
                       1
## 5: 2007
                                                0 201
                                                              6.0
                                                                      7.1 0.32 2.50 3.38
                                                                                                       999
## ---
                               31 19
## 8690: 2007
                       12
                                                0 271 11.7 13.9 1.47 7.69 4.75
                               31 20
## 8691: 2007
                       12
                                              0 280 11.8 14.9 1.68 7.69 4.62
                                                                                                       999
                       12
## 8692: 2007
                               31 21
                                                0 271 12.8 16.1 1.58 8.33 4.49
                                                                                                       999
                               31 22
31 23
## 8693: 2007
                        12
                                                 0
                                                      278 12.1 14.5 1.50 4.35 4.44
                                                                                                       999
                      12
## 8694: 2007
                                                0 272 12.7 15.5 1.42 4.35 4.29
##
             PRES ATMP WTMP DEWP VIS TIDE
##
             <num> <num> <num> <num> <num> <num> <num>
## 1: 1029.0 3.6 7.1 999.0
##
                               7.1 999.0
       2: 1028.8
                                                 99
                                                         99
                       3. 5
##
       3: 1028.9
                       3.6
                               7.1 999.0
                                                 99
                                                         99
## 4: 1028.3 3.1 7.1 999.0
                                                         99
## 5: 1028.7 2.8 7.1 999.0
                                                         99
                                               99
##
## 8690: 1007.4 4.2 4.0 0.3
                                                         99
## 8691: 1008.9 4.4 4.3 -0.2
                                                 99
                                                         99
                               4.3 -0.9
## 8692: 1010.6
                       4.7
                                                 99
                                                         99
## 8693: 1012.2 4.7 4.4 -1.1
                                                         99
## 8694: 1013.7 4.3 4.6 -1.3
                                                 99
##
## [[24]]
##
             #YY
                       MM
                              DD
                                      hh
                                                mm WDIR WSPD GST WVHT DPD APD
##
           <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <inum> <inum <inu
## 1: 2008
                      1 1 0
                                                 0 274 11.6 14.1 1.40 4.17 4.17
       2: 2008
                                         1
                                                 0
                                                      282 10.6 12.9 1.23 4.17 4.02
                                     2
## 3: 2008
                       1
                               1
                                                0 284 9.5 11.5 1.05 4.00 3.99
## 4: 2008
                      1 1 3
                                              0 282 7.3 8.7 0.85 3.45 3.79
                                                                                                       999
##
       5: 2008
                                                0
                                                      268
                                                                      6.0 0.64 7.69 4.09
                               1 4
                                                              4.9
                                                                                                       999
## ---
                      12
                               31 18
31 19
## 8741: 2008
                                               50
                                                      16 14.4 16.9 2.33 5.88 5.01
                                                                                                       999
## 8742: 2008
                                                50
                                                        19 14.5 16.9 2.67 6.25 5.26
                                                                                                       999
                        12
                                31 20
## 8743: 2008
                                                      4 13.6 16.2 3.07 6.67 5.68
                       12
                                                50
                                                                                                       999
                       12
## 8744: 2008
                                                50
                                                      335 13.5 16.2 2.53 7.14 5.27
                               31 21
                                                                                                       999
## 8745: 2008
                       12
                                31
                                       22
                                                50
                                                      329 13.7 16.4 2.43 7.14 5.24
                                                                                                       999
             PRES ATMP WTMP DEWP VIS TIDE
##
            <num> <num> <num> <num> <num> <num> <num>
##
       1: 1015.3 4.0 4.7 -1.6
                                                        99
## 2: 1016.4
                       3.6 4.7 -1.7
##
       3: 1017.8
                       3.3 4.8 -1.6
                                                 99
                                                         99
       4: 1018.9 3.2 4.8 -1.7
##
                                                 99
                                                         99
## 5: 1019.5 2.8 4.8 -1.4
## 8741: 996.8 -1.9
                               5, 6 -2, 2
                                                         99
## 8742: 997.2 -3.0 5.6 -3.2
                                                         99
## 8743: 997.9 -2.9
                               5.6 -4.1
                                                 99
                                                         99
## 8744: 1000.0 -4.4 5.6 -5.2
                                                 99
                                                         99
## 8745: 1001.3 -4.9 5.6 -5.9
                                                 99
                                                         99
```

```
## [[25]]
                             mm WDIR WSPD GST WVHT DPD APD MWD
         #YY
                  DD hh
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2008
              12
                  31 23
                             50 326 14.4 17.3 2.52 7.14 5.27
                                                                 999
## 2: 2009
                          0
                              50
                                  316 16.7 19.7 2.65 7.14 5.05
                    1
    3: 2009
                              50
                                  307 15.7 19.0 3.01 6.25 5.27
                                                                 999
                     1
                          1
##
                                  315 17.0 20.7 2.65 5.88 5.19
    4: 2009
               1
                    1
                         2
                              50
                                                                 999
                   1 3
## 5: 2009
                             50 315 16.5 20.8 3.05 5.56 5.34
## 8728: 2009
              12 31 18
                             50 274
                                       4. 2 5. 7 0. 42 11. 43 3. 61
                                                                 999
## 8729: 2009
              12 31 19
                             50 258 3.6 4.7 0.39 11.43 3.38
                                                                 999
## 8730:
        2009
                        20
                              50
                                   55
                                             1.3 0.35 10.81 4.14
               12
                    31
                                       0.4
                                                                 999
                    31 21
## 8731: 2009
                                  339 1.3 2.2 0.34 12.12 5.39
               12
                              50
                                                                 999
## 8732: 2009
              12 31 22
                              50
                                  15 0.7 1.7 0.35 12.12 5.42
                                                                 999
##
         PRES ATMP WTMP DEWP
                              VIS TIDE
        ## 1: 1002.4 -5.3 5.6 -6.8 99
                                   99
##
     2: 1003.2 -7.7
                    5.6 -9.6
                               99
                                    99
    3: 1003.9 -8.7 5.6 -12.0
                               99
    4: 1004.8 -10.1 5.5 -13.2 99
5: 1005.5 -10.6 5.5 -13.2 99
##
                                    99
##
    5: 1005.5 -10.6
                   5.5 -13.2
                               99
                                    99
## 8728: 1021.8 -0.8 6.0 -1.6
                                    99
                               99
## 8729: 1022.1 -0.8
                   6.0 -1.4
                               99
                                    99
## 8730: 1021.0 -0.5
                    5.9 -1.1
## 8731: 1021.2 -0.2
                   5.9 -0.9
                               99
                                    99
## 8732: 1020.8 0.5
                   5.9 0.3
                               99
                                    99
## [[26]]
        #YY
                              mm WDIR WSPD GST WVHT DPD APD MWD
                   DD hh
##
              MM
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
    1: 2009
                    31
                        23
                              50
                                   37
                                       1.2
                                            2.0 0.35 12.12 5.43
## 2: 2010
                                   32 2.5
               - 1
                    - 1
                         0
                              50
                                            3. 5 0. 35 12. 12 5. 02
                                                                 999
                                  2 4.1 5.1 0.38 12.90 5.19
## 3: 2010
                              50
                         1
                   1 2
1 3
##
     4: 2010
                              50
                                    4
                                       4.3
                                             5.5 0.38 12.12 4.94
               1
              1
## 5: 2010
                                       5.4
                                            6, 5 0, 41 13, 79 3, 62
                             50 355
                                                                 999
## ---
                    31 18
## 7840: 2010
              12
                              50
                                  216
                                       2.2
                                            2.4 0.18 99.00 3.21
                    31 19
## 7841: 2010
              12
                                  221
                                            4.5 0.17 99.00 4.11
                              50
                                       4.0
                                                                 999
              12
## 7842: 2010
                   31 20
                             50
                                  203 2.8 3.3 0.17 99.00 3.85
                                                                 999
## 7843:
        2010
               12
                    31
                         21
                              50
                                  190
                                       4.1
                                            4.6 0.16 99.00 3.85
                                                                 999
                   31 22
              12
                                  213 3.7 4.2 0.17 99.00 3.77
## 7844: 2010
                              50
##
        PRES ATMP WTMP DEWP
                             VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num>
  1: 1020.0 1.0 5.9 -0.2
##
    2: 1019.4
                    6.0 -0.6
                               99
                                    99
              1.5
##
    3: 1018.4
               1.4
                    6.0 -0.7
                               99
                                    99
## 4: 1017.8 1.1 6.0 -0.8
                                    99
## 5: 1016.8 0.8 6.1 -0.6
                              99
                                    99
##
## 7840: 1018.4 7.2 6.5 3.2
                                    99
## 7841: 1018.6
              7.5
                   6.5 3.0
                               99
                                    99
## 7842: 1018.6
              7.4
                    6.4 3.8
                               99
                                    99
## 7843: 1018.3 7.0 6.3 4.0
                                    99
## 7844: 1018.5
              7.0 6.2 3.5
                               99
                                    99
##
## [[27]]
##
        #YY
              MM
                   DD
                        hh
                              mm WDIR WSPD GST WVHT DPD APD
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2010
             12 31 23
                              50
                                  225
                                       3.8
                                            4.2 0.16 99.00 4.05
                                                                 999
    2: 2011
                    1
                          0
                              50
                                   234
                                       4.9
                                             5, 7 0, 19 99, 00 2, 74
                       1
## 3: 2011
                                            7.1 0.25 99.00 2.56
               1
                              50
                                  234
                                       5.8
                    1
## 4: 2011
              1 1 2 50 233 5.7 6.8 0.39 2.47 2.58
                                                                 999
##
                             50
                                  227
                                             7.2 0.43 2.47 2.57
    5: 2011
                   1 3
                                       6.4
                                                                 999
##
              12 31 18
12 31 19
                             50
## 8742: 2011
                                  180
                                       0.0 0.1 99.00 99.00 99.00
                                                                 999
## 8743: 2011
                              50
                                  281
                                       2.4
                                             3.8 99.00 99.00 99.00
                                                                 999
                    31 20
## 8744: 2011
                                       2.4 3.7 99.00 99.00 99.00
               12
                              50
                                  287
                                                                 999
              12
## 8745: 2011
                    31 21
                              50
                                  286
                                       2.8 4.5 99.00 99.00 99.00
                                                                 999
## 8746: 2011
               12
                    31
                         22
                              50
                                  289
                                       2.6 3.7 99.00 99.00 99.00
                                                                 999
        PRES ATMP WTMP DEWP VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num>
##
    1: 1018.7
              6.8 6.2 3.5
                                    99
               6.4
## 2: 1018.5
                    6, 2 2, 5
##
    3: 1018.3
              6. 1 6. 1 2. 3
5. 8 6. 1 1. 7
                               99
                                    99
##
    4: 1018.0
                               99
                                    99
  5: 1017.8 5.7 6.1 1.3
## 8742: 1008.4 4.9 5.7 4.2
                                    99
## 8743: 1008.0 5.4 6.1 4.3
                                    99
              5.7 9.1 4.2
5.7 7.4 4.3
## 8744: 1008.1
                               99
                                    99
## 8745: 1008.9
                               99
                                    99
## 8746: 1009.5 5.6 6.4 4.8
                               99
                                    99
```

```
## [[28]]
                            mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
              MM DD hh
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2012
              6
                 30 23
                            50 253 3.4 4.2 0.52 9.09 5.33
## 2: 2012
                         0
                             50
                                 198
                                      3.5
                                           4.1 0.53 7.69 5.41
                    1
    3: 2012
                             50
                                  199
                                      4.0
                                           4.7 0.48 10.00 5.60
                                                                102
                    1
                         1
                       2
## 4: 2012
                   1
                                      3.9 4.4 0.45 9.09 5.20
               7
                             50 218
                                                                87
## 5: 2012
                  1 3
                             50 222
                                      4.5 4.8 0.41 7.69 4.68
## 4405: 2012
              12 31 18
                             50 277 11.6 14.2 0.95 4.00 3.61
## 4406: 2012
              12 31 19
                             50 271 10.9 13.3 0.90 4.17 3.54
                                                                266
## 4407:
        2012
                        20
                             50
                                  274
                                      9.6 11.1 0.91 3.85 3.60
              12
                   31
                                                                273
                   31 21
                                 277 10.0 12.2 0.84 3.70 3.53
## 4408: 2012
              12
                             50
                                                                267
## 4409: 2012
              12 31 22
                             50 257 7.4 9.7 0.65 3.70 3.36
##
        PRES ATMP WTMP DEWP
                             VIS TIDE
        <num> <num> <num> <num> <num> <num> <num> <num>
## 1: 1005.4 23.2 18.2 15.7 99
                                  99
##
    2: 1005.7 22.0 18.2 16.8
                                   99
    3: 1006.1 21.6 18.1 17.8
    4: 1006.1 21.6 18.0 17.7
##
                             99
                                   99
##
    5: 1006.5 21.5 17.7 17.8
                             99
                                   99
## 4405: 1012.2 1.6 7.7 -3.6
## 4406: 1012.2 1.3 7.8 -3.9
                                   99
                              99
                              99
                                   99
## 4407: 1012.3 1.6 7.8 -3.8
## 4408: 1012.1 2.0 7.8 -3.7
                              99
                                   99
## 4409: 1011.5 2.0 7.8 -4.1
                              99
                                   99
## [[29]]
        #YY
                             mm WDIR WSPD GST WVHT DPD APD MWD
              MM DD hh
##
##
      <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
    1: 2012
                   31
                        23
                             50
                                 234 8.5 10.2 0.42 3.33 3.14
## 2: 2013
               1
                   - 1
                         0
                             50
                                 246 9.0 10.9 0.52 2.86 2.94
## 3: 2013
                             50
                                 243 7.3 9.4 0.50 3.33 3.05
                         1
                  1 2
1 3
##
    4: 2013
                             50
                                  252 10.5 12.4 0.50 3.03 2.99
               1
              1
## 5: 2013
                            50 256 10.9 13.0 0.65 3.70 3.28
                                                                265
## ---
                   31 18
31 19
## 8205: 2013
              12
                             50
                                 267
                                      5.1
                                           7.1 0.59 10.81 4.03
## 8206: 2013
              12
                             50 276 4.4 6.9 0.57 10.00 4.33
                                                                86
              12
## 8207: 2013
                   31 20
                             50 278 5.6 7.2 0.55 10.00 4.48
                                                                97
                   31 21
31 22
## 8208: 2013
              12
                             50
                                  254
                                      6.7
                                            9.2 0.52 10.81 4.59
                                                                 67
             12
                                  257 8.4 11.0 0.65 10.00 3.79
## 8209: 2013
                             50
##
        PRES ATMP WTMP DEWP VIS TIDE
        <num> <num> <num> <num> <num> <num> <num>
##
## 1: 1011.6 1.5 7.7 -3.7 99
##
    2: 1010.8
                   7.7 -4.1
                              99
                                   99
              1.5
##
    3: 1010.0
              1.8
                   7.7 -4.0
                              99
                                   99
## 4: 1009.0 2.4 7.7 -3.8
                                   99
## 5: 1008.1 2.6 7.7 -3.8
                             99
                                   99
##
## 8205: 1017.5 -5.8 5.9 -14.8
                                   99
## 8206: 1017.4 -4.8
                   5.8 -14.6
                              99
                                   99
## 8207: 1018.2 -3.9
                   5, 8 -13, 3
                              99
                                   99
## 8208: 1018.6 -2.8 5.7 -12.0
                                   99
## 8209: 1019.3 -2.0 5.8 -10.0
                              99
                                   99
##
## [[30]]
##
        #YY
              MM
                   DD
                        hh
                             mm WDIR WSPD GST WVHT DPD APD
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2013
             12 31 23
                             50 255 6.5 10.1 0.66 3.45 3.54
    2: 2014
                    1
                         0
                             50
                                  246
                                      7.4 10.1 0.63 3.23 3.56
                       1
## 3: 2014
              1
                   1
                             50
                                 246 9.7 11.7 0.55 3.13 3.33
             ## 4: 2014
                                                                270
##
    5: 2014
## ---
             12 31 18
12 31 19
12 31 20
## 8749: 2014
                             50 289
                                      6.1
                                           8.6 0.38 2.86 2.87
                                                                288
## 8750: 2014
                             50
                                  303
                                      5.6
                                            8.4 0.48 3.23 3.03
                                                                273
## 8751: 2014
              12
                                  299 5.1 7.8 0.50 3.23 3.04
                             50
                                                                285
## 8752: 2014
                                  298 4.3 6.9 0.46 3.33 3.04
              12
                   31 21
                             50
                                                                286
## 8753: 2014
              12
                   31
                        22
                             50
                                  282
                                      5.7 8.0 0.45 3.23 3.04
                                                                287
        PRES ATMP WTMP DEWP VIS TIDE
##
       <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1019.2 -2.1 5.8 -9.6
                                   99
## 2: 1019.2 -2.2 5.8 -8.4
##
    3: 1019.8 -1.9 5.9 -7.3
                              99
                                   99
    4: 1019.6 -1.7 5.9 -8.3
##
                              99
                                   99
  5: 1020.2 -2.1 5.9 -9.4
## 8749: 1022.9 -2.1 5.5 999.0
                              99
                                   99
                   5.5 999.0
## 8750: 1023.1 -2.1
                                   99
## 8751: 1023.2 -1.8 5.6 999.0
                              99
                                   99
## 8752: 1023.0 -2.1 5.7 999.0
                              99
                                   99
## 8753: 1023.2 -1.9 5.7 999.0
                              99
                                   99
```

```
## [[31]]
                             mm WDIR WSPD GST WVHT DPD APD MWD
         #YY
               MM DD hh
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2014
              12 31 23
                             50 287
                                      4.9 8.3 0.44 3.23 3.06
## 2: 2015
                          0
                              50
                                   280
                                             7.7 0.39 3.03 2.91
                    1
                                       4.8
    3: 2015
                              50
                                   275
                                        4.1
                                             5.4 0.35 2.86 2.98
                                                                  278
                     1
                          1
                       2
                   1
## 4: 2015
               1
                              50
                                  236
                                       5.3
                                             6, 9 0, 27 2, 86 2, 82
                                                                 277
## 5: 2015
              1 1 3
                             50 220
                                       4.8 6.9 0.20 99.00 2.77
## 8745: 2015
              12 31 18
                             50 298
                                       7.6 8.8 1.23 10.00 5.78
              12 31 19
12 31 20
## 8746: 2015
                             50 310 6.4 8.1 1.23 10.00 5.43
                                                                  100
## 8747:
        2015
                              50
                                   284
                                       7.7
                                             9.8 1.22 10.81 5.55
                                                                  74
                    31 21
               12
                                   280 8.8 10.6 1.25 10.00 5.28
## 8748: 2015
                              50
                                                                  94
                              50 278 10.2 12.1 1.29 10.00 5.24
## 8749: 2015
              12 31 22
                                                                  81
##
         PRES ATMP WTMP DEWP
                              VIS TIDE
        <num> <num> <num> <num> <num> <num> <num> <num>
## 1: 1022.9 -2.3 5.7 999.0 99
                                   99
##
    2: 1022.7 -2.3
                    5.7 999.0
                                    99
## 3: 1022.2 -2.5 5.7 999.0
    4: 1021.9 -2.3 5.6 999.0
##
                              99
99
                                    99
##
    5: 1021.2 -2.7
                    5.6 999.0
                                    99
## 8745: 1013.2 7.2 8.7 3.7
## 8746: 1013.4 6.8 8.7 3.4
                               99
                                    99
                               99
                                    99
## 8747: 1014.1 7.0
                    8.7 2.5
## 8748: 1014.8 6.5 8.6 1.7
                               99
                                    99
## 8749: 1014.7 6.5 8.6 1.1
                               99
                                    99
## [[32]]
        #YY
                              mm WDIR WSPD GST WVHT DPD APD MWD
              MM DD hh
##
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
    1: 2015
                    31 23
                              50
                                  280
                                       8.8 10.6 1.06 10.00 4.83
## 2: 2016
               1
                    1
                         0
                              50
                                  275
                                       9.9 12.0 1.01 10.00 4.60
                                                                  85
## 3: 2016
                              50
                                   266 8.9 10.4 1.09 10.00 4.49
                    1 1
                   1 2
1 3
##
     4: 2016
                              50
                                   274
                                        9.3 10.7 1.04 10.00 4.42
                                                                  81
               1
              1
## 5: 2016
                             50 279
                                       9.8 11.5 1.08 9.09 4.56
                                                                  87
## ---
                    31 18
31 19
## 8691: 2016
               12
                              50
                                  191
                                        7.5 9.1 0.52 10.81 3.31
              12
## 8692: 2016
                             50 188
                                       7.5 9.5 0.58 10.81 3.30
                                                                  336
              12
## 8693: 2016
                    31 20
                             50 182 7.6 9.3 0.57 11.43 3.41
                                                                 320
                   31 21
31 22
## 8694: 2016
               12
                              50
                                   174
                                        9. 1 11. 4 0. 71 10. 81 3. 52
                                                                  80
              12
## 8695: 2016
                              50
                                 175 8.8 10.2 0.74 4.00 3.60
##
        PRES ATMP WTMP DEWP VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num>
## 1: 1015.1 6.4 8.6 0.3
##
    2: 1015.2
               6.3 8.5 -0.4
                               99
                                    99
##
    3: 1015.4
               6.0
                    8.5 0.3
                               99
                                    99
## 4: 1015.3 5.7 8.5 -0.3
                                    99
## 5: 1015.3 5.5 8.4 -0.4
                              99
                                    99
##
## 8691: 1017.1 2.0 8.2 999.0
                                    99
## 8692: 1016.8 2.4 8.2 999.0
                               99
                                    99
## 8693: 1016.3
               3.1
                    8, 2, 999, 0
                               99
                                    99
## 8694: 1015.4 3.7 8.1 999.0
                                    99
## 8695: 1015.1 4.2 8.1 999.0
                               99
                                    99
##
## [[33]]
##
        #YY
               MM
                   DD
                        hh
                              mm WDIR WSPD GST WVHT DPD APD
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2016
             12 31 23
                              50 177
                                       9. 1 10. 7 0. 82 10. 81 3. 84
##
    2: 2017
                    1
                          0
                              50
                                   177
                                        7.3
                                             8.8 0.87 10.81 3.94
                       1
## 3: 2017
               1
                                       7.4 8.7 0.85 4.00 3.95
                    1
                              50 174
              1 1 2 50 186 8.6 10.7 0.85 4.35 3.92 135
1 1 3 50 207 7.9 10.0 0.94 12.12 3.90 126
## 4: 2017
##
    5: 2017
## ---
              12 31 18
12 31 19
## 8692: 2017
                              50 297 12.4 15.0 1.22 4.55 3.81
                                                                 306
## 8693: 2017
                              50
                                   294 12.6 15.7 1.15 4.35 3.81
                                                                  312
                    31 20
               12
## 8694: 2017
                              50
                                   294 11.8 16.8 1.29 4.55 3.89
                                                                 302
               12
## 8695: 2017
                                   293 12.8 17.0 1.36 4.55 3.97
                    31 21
                              50
                                                                 299
## 8696: 2017
               12
                    31
                         22
                              50
                                   298 12.0 15.1 1.26 4.76 3.91
                                                                 301
        PRES ATMP WTMP DEWP
                             VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1014.5 5.3 8.1
                         999
                                    99
## 2: 1013.7
               6.0
                    8.1
##
    3: 1012.7
               7.0 8.2
                         999
                               99
                                    99
##
    4: 1011.8
               7.6 8.2
                         999
                               99
                                    99
  5: 1010.8 7.2 8.2 999
## 8692: 1017.4 -9.7
                   6. 5
                         999
                                    99
## 8693: 1018.5 -9.5 6.5
                         999
                                    99
## 8694: 1019.7 -9.3
                    6.5
                         999
                               99
                                    99
## 8695: 1019.7 -9.2 6.5
                         999
                               99
                                    99
## 8696: 1020.3 -9.4 6.5 999
                               99
                                    99
```

```
## [[34]]
                            mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
              MM DD hh
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2017
             12 31 23
                            50 302 13.3 16.7 1.19 4.35 3.76
                        0
                             50
                                 294 11.5 15.0 1.30 4.76 3.97
## 2: 2018
                   1
    3: 2018
                             50
                                 295 12.0 15.3 1.25 4.35 3.84
                                                               304
                    1
                         1
                      2
## 4: 2018
              1
                   1
                             50
                                 305 10.5 14.2 1.18 4.17 3.74
                                                              312
## 5: 2018
                            50 314 11.8 14.2 1.14 3.85 3.65
## 8656: 2018
             12 31 18
                            50 157
                                     4.5 5.1 0.44 13.79 4.54
## 8657: 2018
             12 31 19
                            50 155 5.7 7.0 0.43 14.81 3.84
## 8658:
        2018
                       20
                             50
                                 168
                                           9.5 0.55 13.79 3.63
              12
                   31
                                      8.4
                                                               169
                   31 21
                                 165 8.3 9.7 0.71 3.57 3.70
## 8659: 2018
              12
                             50
                                                              140
## 8660: 2018
             12 31 22
                             50 157 7.9 9.6 0.67 3.85 3.59
                                                               137
        PRES ATMP WTMP DEWP
                            VIS TIDE
##
        ## 1: 1020.6 -10.3 6.5 999.0 99
                                  99
##
    2: 1020.9 -10.3
                   6.5 999.0
                                   99
    3: 1020.8 -11.1 6.5 999.0
##
    4: 1021.1 -11.8 6.5 999.0
                             99
                                  99
    5: 1021.1 -12.2 6.5 999.0
                              99
                                   99
## 8656: 1026.4 5.7 7.0 0.2
                                   99
                              99
## 8657: 1025.7
              6.0
                   7.0 1.1
                              99
                                   99
## 8658: 1024.8 5.9 7.0 -0.4
## 8659: 1024.6 5.6
                   7.0 -0.2
                              99
                                   99
## 8660: 1024.9 5.3 7.0 -0.5
                              99
                                   99
## [[35]]
                             mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
                  DD hh
##
              MM
##
      <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
              1 1 0
    1: 2019
                             50
                                 158 9.6 11.5 0.81 4.00 3.77
## 2: 2019
               1
                    1
                        1
                             50
                                 136 10.6 12.3 0.99 4.35 3.95
                                                               131
## 3: 2019
                             50 143 11.1 13.3 1.22 4.76 4.18
                         2
                  1 3
1 4
##
    4: 2019
                             50
                                 139 12.3 14.6 1.31 5.00 4.15
                                                               131
             1
## 5: 2019
                                133 12.3 15.6 1.41 5.00 4.31
                            50
                                                              134
## ---
                   31 18
31 19
## 8609: 2019
              12
                            50
                                 330
                                      6.9
                                           8.4 3.45 10.00 7.47
              12
## 8610: 2019
                            50 329
                                           7.2 3.26 10.00 7.57
                                     5.6
                                                               100
             12
                            50 294 4.0 5.6 3.00 10.81 7.62
## 8611: 2019
                   31 20
                                                               90
## 8612: 2019
              12
                   31
                       21
                             50
                                 328
                                      3.8
                                           5. 2 2. 52 10. 00 7. 34
                                                               103
                   31 22
             12
## 8613: 2019
                             50
                                 298 6.3
                                           8.8 2.83 10.00 8.00
##
        PRES ATMP WTMP DEWP
                            VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num> <num>
## 1: 1023.7 3.6 7.0 1.5
##
    2: 1021.0
                   7.0 1.7
                              99
                                  99
              4. 1
##
    3: 1019.3
              4.1
                   7.0 2.6
                              99
                                   99
## 4: 1017.3 4.2 7.0 3.3
                                   99
## 5: 1014.8 5.0 7.0 4.4
                             99
                                  99
##
## 8609: 999.3 3.1 7.1 3.1
                                   99
                   7. 1 3. 2
7. 1 3. 1
## 8610: 999.5
              3, 2
                              99
                                   99
## 8611: 1000.4
              3. 1
                              99
                                   99
## 8612: 999.6 2.9 7.0 2.7
## 8613: 1000.4 3.2 6.9 2.3
                              99
                                   99
##
## [[36]]
##
         #YY
              MM
                   DD
                        hh
                              mm WDIR WSPD GST WVHT DPD APD
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
              12
##
   1: 2019
                  31 23
                              50
                                  295 5.4 7.0 2.48 10.00 7.51
     2: 2020
               1
                    1
                         0
                              50
                                  276
                                       5.3
                                            6.9 2.46 10.00 7.61
                   1
                       1
    3: 2020
                                  257 7.1 9.3 2.09 10.00 7.03
##
                              50
               1
   4: 2020
             1 1 2 50
1 1 3 50
##
                                  247 7.7 10.0 2.17 10.81 6.89
                                                                77
##
    5: 2020
                                          10.0 2.32 10.00 7.45
                                  242
                                      7.8
##
               12 31 23 10
12 31 23 20
## 16099: 2020
                                  300 8.0 9.8 99.00 99.00 99.00
                                                               999
## 16100:
        2020
                                  300
                                      6.9
                                            8.5 99.00 99.00 99.00
                                                                999
                  31
                        23
## 16101: 2020
                                  301 7.1 9.2 99.00 99.00 99.00
               12
                              30
## 16102: 2020
               12 31 23
                             40
                                  300 7.7 10.0 0.63 3.33 3.30
                                                               304
## 16103: 2020
               12
                    31
                        23
                              50
                                  300
                                       8.1 10.0 99.00 99.00 99.00
                                                               999
        PRES ATMP WTMP DEWP
                              VIS TIDE
##
        ##
     1: 1000.3 3.0 6.9 2.7
                              99
   2: 1000.4
               3.4
                   6.9
                        2.6
##
     3: 1000.5 3.6 6.9 2.7
                               99
                                   99
##
     4: 999.9 3.9 6.8 2.9
                               99
                                   99
    5: 999.6 4.3 6.8 2.9
## 16099: 1022.9 5.3 7.3 -2.9
                               99
                                    99
## 16100: 1023.1 5.4 7.3 -2.3
## 16101: 1023.1
               5.3 7.3 -2.5
                               99
                                   99
## 16102: 1023.4 5.2 7.3 -2.6
                              99
                                   99
## 16103: 1023.8 5.2 7.3 -2.7
                              99
```

```
## [[37]]
                   DD hh
                               mm WDIR WSPD GST WVHT DPD APD
##
        <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
     1: 2021
               1
                    1 0 0
                                   302 7.9 9.8 99.00 99.00 99.00
                                                                   999
##
     2: 2021
                           0
                                        7.8 10.1 99.00 99.00 99.00
                                10
                                    301
##
     3:
         2021
                           0
                                20
                                    301
                                         8.1 10.1 99.00 99.00 99.00
                                                                   999
                      1
                 1
                    1
     4: 2021
                                    305 7.3 9.0 99.00 99.00 99.00
##
                1
                           0
                               30
                                                                   999
##
    5: 2021
              1 1 0
                              40
                                   302 7.2 9.4 0.57 3.45 3.22
## 51559: 2021
              12 31 23 10
                                   160 1.8 2.4 99.00 99.00 99.00
                                                                   999
                                                                   999
## 51560: 2021
              12 31 23 20
                                   174 2.0 2.5 99.00 99.00 99.00
         2021
                          23
                                30
                                    201
                                              3.0 99.00 99.00 99.00
## 51561:
                12
                     31
                                         2.4
                                                                   999
                     31 23
                                    204 2.4 2.9 0.43 10.00 5.98
## 51562: 2021
                12
                                40
                                                                   111
                                    221 2.4 3.3 99.00 99.00 99.00
## 51563: 2021
               12
                    31 23
                                50
                                                                   999
          PRES ATMP WTMP DEWP
                               VIS
                                    TIDE
##
         <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1024.1 5.2 7.4 -3.0 99
                                     99
##
     2: 1024.2
                5.1
                     7.4 -3.0
                                99
     3: 1024.4 5.1 7.4 -2.8
                                99
     4: 1024.6 5.1 7.3 -2.8
##
                                99
                                     99
##
     5: 1024.7 5.0 7.3 -2.9
                                99
                                     99
## 51559: 1015.0 999.0 8.5 999.0
                                     99
                                99
## 51560: 1015.0 999.0
                    8.5 999.0
                                99
                                     99
## 51561: 1015.5 999.0 8.5 999.0
## 51562: 1015.6 999.0 8.5 999.0
                                99
                                     99
## 51563: 1015.8 999.0 8.5 999.0
                                99
                                     99
## [[38]]
                                mm WDIR WSPD GST WVHT DPD APD
         #YY
##
                MM DD hh
##
        <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
     1: 2022
                1
                    1
                          0 0
                                   239
                                        2.5
                                             3.2 99.00 99.00 99.00
##
     2: 2022
                 1
                      1
                           0
                                10
                                    235
                                         1.9
                                              2. 8 99. 00 99. 00 99. 00
                                                                   999
##
    3: 2022
                                    207
                                        1.6 2.4 99.00 99.00 99.00
                           0
                                20
##
     4:
         2022
                   1 0
1 0
                               30
                                    183
                                         1.3
                                              1.7 99.00 99.00 99.00
                1
              1
                              40
##
    5: 2022
                                        1.5
                                              2.1 0.40 9.09 6.19
                                   176
                                                                   137
##
## 52525: 2022
                    31 23
                              10
                                    999
                                        4.1
                                              4.9 99.00 99.00 99.00
                12 31 23 20
## 52526: 2022
                                              4.5 99.00 99.00 99.00
                                    999 3.9
## 52527: 2022
              12 31 23 30
                                    999 4.1 4.5 99.00 99.00 99.00
                                                                   999
## 52528:
         2022
                12
                     31
                          23
                                40
                                    999
                                         4.1
                                              4.5 0.43 10.00 3.36
                                                                    71
                   31 23
## 52529: 2022
              12
                                    999 4.0 5.1 0.41 10.00 3.33
                                50
##
         PRES ATMP WTMP DEWP VIS TIDE
##
         <num> <num> <num> <num> <num> <num>
                999 8.5 999
    1: 1015.7
##
                999
                     8. 5
                          999
                                99
                                     99
     2: 1015.7
##
     3: 1015.7
                999
                     8.5
                          999
                                99
                                     99
                999 8.5 999
    4: 1015.5
##
    5: 1015, 5 999 8, 5 999
                                99
                                     99
##
## 52525: 1011.5
                999 7.6
                          999
## 52526: 1011.4
                999
                     7.6
                          999
                                99
                                     99
## 52527: 1011.1
                999
                     7.6
                          999
                                99
                                     99
## 52528: 1011.1
                999
                    7.6
                          999
## 52529: 1011.0 999
                    7.6
                          999
                                99
##
## [[39]]
##
         #YY
                MM
                    DD
                          hh
                                mm WDIR WSPD GST WVHT DPD APD
##
        <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
     1: 2023
              1
                   1
                           0
                                0
                                    999 4.3 5.0 99.00 99.00 99.00
         2023
                 1
                      1
                           0
                                10
                                    999
                                         4.5
                                              5.4 99.00 99.00 99.00
                    1 0
##
     3: 2023
                                20
                                    999 4.2
                                             4.8 99.00 99.00 99.00
                1
##
     4: 2023
              1 1 0 30 999 4.2 4.8 99.00 99.00 99.00
                                                                   999
                                    999
##
     5: 2023
                1
                    1 0
                              40
                                         3.9
                                              4.3 0.41 9.09 3.43
##
                12 31 23 10
12 31 23 20
## 52476: 2023
                                   340 4.9
                                             6. 2 0. 43 10. 81 4. 96
                                                                   76
## 52477:
         2023
                                    332
                                         5.0
                                              6.0 99.00 99.00 99.00
                                                                   999
                   31 23
                                             6.4 99.00 99.00 99.00
## 52478: 2023
                12
                                30
                                    331
                                        5, 2
                                                                   999
## 52479: 2023
                12 31 23
                               40
                                    337
                                         5. 2 6. 9 0. 50 10. 00 3. 73
                                                                   99
## 52480: 2023
                12
                     31
                          23
                                50
                                    335
                                         5.1
                                              6.7 99.00 99.00 99.00
                                                                   999
         PRES ATMP WTMP DEWP VIS TIDE
##
         <num> <num> <num> <num> <num> <num> <num>
     1: 1010.8 999.0 7.6 999.0
##
                                99
    2: 1010.6 999.0 7.6 999.0
##
     3: 1010, 2 999, 0 999, 0 999, 0
                                99
                                     99
##
     4: 1010.0 999.0 7.6 999.0
                                99
                                     99
    5: 1009.8 999.0 7.6 999.0
## 52476: 1014.2 3.6 7.3 -2.5
                                99
                                      99
## 52477: 1014.3 3.3 7.3 -3.0
                                     99
## 52478: 1014.4 3.2 7.3 -3.1
                                99
## 52479: 1014.4 3.1 7.3 -3.0
                                99
                                     99
## 52480: 1014.6 3.0 7.2 -3.2
                                99
```

###b Identify and deal with the null data in the dataset.

```
## $`1985`
         YY
              MM DD
                       hh
                           WD WSPD GST WVHT DPD APD
                                                        MWD
                                                            BAR
       <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
                                                        999 1030, 3
##
    1: 85
                  1
                      0
                           60
                                    5
                                                   99
## 2:
         85
                        1
                            80
                                      5
                                          99
                                               99
                                                    99
                                                        999 1030, 0
##
                           100
                                                        999 1030.1
    3:
         85
                   1
                                          99
                                               99
                                                    99
                 1
                                    5
             1
                      3
## 4:
                                                        999 1029.4
        85
                           100
                                         99
                                               99
                                                   99
                                 4
                                                        999 1028.6
## 5: 85
             1 1 4
                           110
                                    5
                                         99
                                               99
                                                   99
##
## 8715:
             12 31 19
                           200
                                 10 13
                                                   99
                                                        999 1008, 5
         85
                                         99
                                               99
                                                        999 1008 0
## 8716: 85
            12 31 20
                           200
                                11 15 99
                                               99
                                                   99
## 8717:
         85
             12
                  31
                       21
                           200
                                 10
                                     12
                                         99
                                               99
                                                   99
                                                        999 1008.7
                                9 12 99
## 8718: 85
            12
                  31 22
                                                        999 1009.0
                           210
                                               99
                                                  99
## 8719: 85
            12 31
                                                        999 1009.1
                      23
                           210 8 10 99 99
                                                  99
##
       ATMP WTMP DEWP
                       VIS
      <num> <num> <num> <num> <num>
## 1: 4.7
## 2: 5.1
            6.7 999
                       99
             6.7
                  999
                       99
## 3: 5.6 6.6 999
## 4: 5.8 6.7
## 5: 5.8 6.7
                 999
    4: 5.8 6.7
                       99
                 999
                       99
## ---
## 8715:
        7.5 4.6
                  999
                       99
       7.9 4.7
## 8716:
                  999
                       99
## 8717: 7.4 4.8 999
## 8718:
       7.2 4.9
                  999
                       99
## 8719: 6.7 4.4 999
                       99
##
## $`1986`
                           WD WSPD GST WVHT DPD APD MWD BAR
            MM DD hh
##
        YY
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
##
    1:
                  1 0
                           210
                                     11 99.0 99.0 99.0
## 2: 86
                                                        999 1009.3
                           210
                                 9
                                     10 99.0 99.0 99.0
              1
                   1
                        1
## 3: 86
             1 1 2
                           220
                               8 10 99.0 99.0 99.0
                                                        999 1009. 2
            ##
    4:
        86
                           220
                                 6
                                     8 99.0 99.0 99.0
                                                        999 1009.3
                                    8 99.0 99.0 99.0
  5: 86
                                6
##
                                                       999 1009.0
                           210
## ---
                  31 19
## 8164:
        86
             12
                           320
                                    10
                                         3.0 11.1
                                                  8.3
                                                        999 1017.5
## 8165: 86 12 31 20
                           350
                                        2.9 11.1
                                                  8.2
                                                        999 1018.8
                                8
## 8166: 86
             12
                  31 21
                           320
                                 9 11
                                         2.7 11.1
                                                        999 1019.6
                                                  8.4
## 8167:
        86
             12
                  31
                       22
                           320
                                 8
                                     10
                                         2.7 11.1
                                                  8.6
                                                        999 1021.0
## 8168: 86
                                    8 2.9 11.1 8.7 999 1022.5
            12 31
                      23
                           290
       ATMP WTMP DEWP
                      VIS
##
##
       <num> <num> <num> <num> <num>
## 1: 5.8 4.3 999
                       99
##
    2: 4.7 4.3
3: 4.0 4.3
                  999
                       99
                 999
                       99
## 4: 3.9 4.3 999
## 5: 3.9 4.3 999
                       99
## ---
## 8164: 4.0 6.2 999
## 8165:
        4.3
             6.2
                  999
                       99
## 8166: 4.4 5.9
                 999
                       99
## 8167: 3.9 5.9 999
                       99
## 8168: 3.2 5.9
                 999
                       99
##
## $`1987`
                            WD WSPD GST WVHT DPD APD MWD
##
             MM
                 DD
                      hh
       <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
##
## 1:
         87
             1 1
                       0
                           290 8.0 10.0 2.7 11.1 8.6
                                                        999 1023.5
##
    2:
                           290
                                7.0
                                                        999 1024.3
         87
                                    8.0
                                         2.4 10.0
                                                   8.0
             1 1
## 3: 87
                                                       999 1023.8
                           290 6.0 8.0
                                         2.5 11.1
                                                  8.3
                       2
## 4: 87
             1 1 3
                           300 6.0 7.0
                                         2.6 11.1 8.6
                                                       999 1024.1
##
    5:
        87
              1
                  1
                       4
                           290
                               5.0
                                    6.0
                                         2.7 12.5
                                                  8.7
                                                        999 1025.2
##
                               8.6 10.1
## 7598: 87
             12 31 19
                           177
                                                        999 1023, 4
                                         0.4 11.1
                                                  4.7
## 7599:
         87
             12
                  31
                       20
                           195
                                7.9
                                    9.3
                                         0.5 11.1
                                                  4.3
                                                        999 1023.6
             12 31 21
## 7600: 87
                               7.6
                                    9.0
                                         0.4 10.0 4.1
       87
87
            12
12
                           223 6.7 8.0 0.4 10.0 4.1
## 7601:
                  31 22
31 23
                                                       999 1022, 1
## 7602:
                           225 5.0 6.0 0.3 12.5 4.4 999 1021.3
       ATMP WTMP DEWP
                     VIS
##
      <num> <num> <num> <num>
## 1: 2.8
            5.9 999
                       99
## 2: 2.0
             5.9
                  999
##
    3:
        1.6
             5.9
                  999
                       99
       1.3
##
    4:
             6.0
                 999
                       99
## 5: 1.0
                  999
             5.9
##
## 7598: 0.5
             5.1
                  999
                       99
## 7599: 0.1 5.1
                  999
                       99
## 7600:
        0.9
             5.1
                  999
                       99
## 7601:
       1.6
             5. 1
                  999
                       99
## 7602: 1.6 5.1 999
                       99
##
```

```
## $`1988`
              MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1: 88
             1 1 1 191 5.7 6.7 0.3 14.3 4.7
                                                        999 1020.1
## 2:
         88
                           182
                                8.0 9.3
                                         0.4 3.6
                                                        999 1018.9
                                                  3.8
    3:
         88
                           196
                                8.1 10.3
                                         0.4
                                              3.0
                                                   3.5
                                                        999 1019.0
                   1
                        3
              1
             1
## 4: 88
                               7.8 8.7 0.4 2.9
                                                  3, 4 999 1019, 0
                   1
                        4
                           193
                 1 5
## 5: 88
                           182 6.9 8.9 0.3 2.6 3.7
                                                        999 1018, 9
             1
##
## 8067: 88
             12 31 19
                           259
                                8.8 11.5 0.4 3.3
                                                        999 1013.9
                                                  3.4
## 8068: 88
             12 31 20
                           267
                                8.5 10.2 0.5 3.6 3.5
                                                        999 1014.7
## 8069:
         88
                  31
                       21
                           277
                                9.7 12.2
                                         0.6
                                              3.4
                                                        999 1015.5
              12
                                                   3.5
                      22
## 8070: 88
                           291 9.6 12.6 0.4 3.6 3.5
                                                        999 1016, 4
             12
                  31
## 8071: 88
             12 31
                      23
                           284 7.1 8.8 0.3 3.1 3.3 999 1017.9
##
       ATMP WTMP DEWP
                      VIS
      <num> <num> <num> <num> <num>
## 1: 3.9 5.1 999
                     99
##
    2:
        4.6
             5.1
                  999
                       99
## 3: 4.7 5.1 999
## 4: 4.4
## 5: 4.3
             5.1 999
                       99
             5.1 999
                       99
## 8067: 4.4 4.7 999
## 8068: 4.7 4.7 999
                       99
            4.7
                       99
## 8069: 4.3 4.7
                 999
## 8070: 3.6 4.7 999
## 8071: 3.3 4.7 999
                       99
                       99
##
## $`1989`
        YY
                           WD WSPD GST WVHT DPD APD MWD BAR
              MM DD hh
##
##
     <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
    1:
              1 1 0
                           309
                               8.5 9.8
                                         0.2 2.9 3.3
## 2:
        89
              1
                   1
                        1
                           329
                                9.0 11.2
                                         0.3 2.9
                                                  3. 2
                                                        999 1020.1
## 3:
         89
                        2
                           326 7.4 9.9
                                         0.3 3.1 3.4
                                                        999 1022.3
##
    4:
        89
                   1
                        3
                           340
                                8.2 11.4
                                         0.2
                                              3.0
                                                   3.5
                                                        999 1022, 5
              1
## 5: 89
                 1 4
             1
                                9.6 11.4 0.3 3.2
                           349
                                                        999 1022.5
                                                  3.4
## ---
## 7929:
                  31
             12
                      19
                           158
                                7.1
                                    8.2
                                         1.0
                                             6.2
                                                   5.3
                                                        999 1013.9
                  31 20
## 7930: 89 12
                           163
                                7.0 8.2
                                         1.1
                                              7.1
                                                        999 1012.7
                                                   5.4
## 7931: 89 12
                  31 21
                           160 7.3 8.2 1.0 6.7 5.5
                                                        999 1011, 4
## 7932:
        89
             12
                  31
                       22
                           150
                                7.3
                                    8.1
                                         1.0
                                              7.1
                                                   5.6
                                                        999 1009.6
## 7933: 89
            12 31 23
                               7.5 8.4 1.0 7.1 5.6
                                                        999 1008.0
                           159
##
       ATMP WTMP DEWP VIS
##
       \langle num \rangle \langle num \rangle \langle num \rangle \langle num \rangle
## 1: 2.8 4.7 999
## 2: 1.7
## 3: 1.1
                 999
                       99
             4.7
             4.7
                 999
                       99
## 4: 0.2 4.7 999
## 5: -0.7 4.7 999
## ---
                       99
## 7929: 3.4 2.9
                  999
## 7930: 3.2 2.9
                  999
                       99
## 7931: 3.7
             2.9
                 999
                       99
## 7932: 4.4 3.2 999
## 7933: 3.9 3.2 999
##
## $`1990`
##
         YY
              MM
                  DD
                       hh
                            WD WSPD GST WVHT DPD APD MWD
                                                            BAR
##
      ## 1: 90
             1 1 0
                           149 9.5 10.8 1.1 7.1 5.5
                                                        999 1004.9
##
    2:
         90
                        1
                           149
                                9.9 11.6
                                         1.2
                                              7.1
                                                   5.5
                      2
             1
                 1
## 3: 90
                                7.8 9.7 1.1 7.1
                                                        999 1001.8
                           182
                                                  5.4
## 4: 90
             1 1 3
                           200 9.5 10.9 1.0 7.1 5.4
                                                        999 1000, 5
##
    5:
                           199
                                9.9 11.8
                                                        999 999.6
        90
             1
                  1
                      4
                                         1.1
                                              7.1
                                                   5.5
## ---
                  31 19
31 20
## 8699: 90
             12
                           337 9.6 12.4 0.7 10.0 4.4
                                                        999 1023, 4
                                                        999 1024.9
## 8700:
         90
              12
                           322 10.3 12.8
                                         0.8
                                             6.2
                                                   4.7
                  31 21
## 8701: 90
             12
                           325 8.4 10.9 0.7 11.1 4.9
                                                        999 1026.1
             12
                           327 9.7 12.4 0.7 6.2 4.9
                                                        999 1027.2
## 8702: 90
                  31 22
## 8703:
        90
              12
                  31
                       23
                           326 9.0 12.0 0.7 7.1 5.2
                                                        999 1028.6
       ATMP WTMP DEWP VIS
##
      <num> <num> <num> <num> <num>
##
    1: 4.3
             3.3 999
                       99
## 2: 5.4
             3.3
## 3: 7.0
## 4: 8.8
             3. 2
                 999
                       99
             3.2
                 999
                       99
## 5: 8.6 3.2 999
##
## 8699: 0.0 6.4
                  999
                       99
## 8700: -0.5 6.4
                  999
                       99
## 8701: -1.0 6.4
                  999
                       99
## 8702: -2.1 6.4
                 999
                       99
## 8703: -2.6 6.4 999
```

```
## $`1991`
              MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1: 91
             1 1 0 322 10.6 12.8 0.8 7.7 5.0 999 1029.7
## 2:
                            343 8.7 10.9
                                          0.8 5.9
                                                   5.1
                                                        999 1031.1
                        1
    3:
         91
                        2
                            336
                                7.3 10.7
                                          0.7
                                              7.1
                                                        999 1031.7
              1
                   1
                                                   5.0
             1
## 4:
                           328 9.1 11.2 0.7 7.1
        91
                   1
                        3
                                                   5. 2
                                                        999 1031, 8
## 5: 91
                           334 10.6 12.3 0.8 6.7 4.7
                                                        999 1032.6
## ---
## 8726: 91
             12 31 19
                           285
                               3.4 5.0 2.0 10.0
                                                   7.8
                                                        999 1035.0
## 8727: 91
             12 31 20
                           266 3.8 4.8 1.9 10.0 7.9
                                                        999 1034.8
## 8728:
                       21
                            269
                                    5.5
                                          1.7 10.0
                                                        999 1034.5
         91
              12
                   31
                                4.4
                                                   7.6
## 8729: 91
                      22
                           263 4.1 5.4 1.9 9.1 7.9
                                                        999 1034, 4
             12
                   31
## 8730: 91
             12 31
                      23
                           254 4.5 5.7 1.6 8.3 7.6
                                                        999 1034, 5
##
        ATMP WTMP DEWP
                      VIS
      <num> <num> <num> <num> <num>
## 1: -3.0 6.4 999
                      99
##
    2: -3.4
             6.4
                  999
                        99
## 3: -4.1 6.4 999
## 4: -4.3 6.4 999
## 5: -4.4 6.4 999
                       99
                       99
## 8726: 0.8 5.5 999
                       99
## 8727: 1.6 5.5
                  999
                        99
## 8728: 2.0 5.5
                  999
## 8729: 2.1 5.6 999
## 8730: 2.3 5.6 999
                       99
                        99
## $`1992`
         YY
                           WD WSPD GST WVHT DPD APD MWD
             MM DD hh
                                                            BAR
##
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
    1:
              1 1 1
                           249
                                5.9
                                     7.0
                                          1.2 7.7
                                                   7.3
## 2:
         92
               1
                   1
                        2
                           260
                                5. 6
                                     6.3
                                         1.1 7.7
                                                   7.5
                                                        999 1034.3
## 3:
                           269 5.0 5.9 1.1 11.1 7.6
                                                        999 1034, 2
         92
                        3
##
    4:
         92
                   1
                        4
                           281
                                5.2
                                     6.4
                                          1.0 10.0
                                                   8.1
                                                        999 1034, 1
              1
                 1 5
## 5: 92
             1
                                     6.4 1.0 10.0
                           280
                                5.4
                                                   8.1
                                                        999 1033.5
## ---
                  31 19
## 8732:
             12
                           264
                                3.6
                                     4.3
                                          1.3 8.3
                                                   7.5
                                                        999 1007.0
                  31 20
## 8733: 92 12
                           248
                                2.5
                                    3.1
                                         1.3 10.0
                                                   7.7
                                                        999 1006.3
## 8734: 92 12 31 21
                           229
                                6.7 7.4 1.1 10.0 7.2
                                                        999 1005 5
## 8735:
         92
             12
                   31
                       22
                           236
                                8.8
                                     9.8
                                          1.0 10.0
                                                   7.4
                                                        999 1004.8
## 8736: 92
            12 31 23
                           252 5.6 6.8 1.0 10.0 7.5
                                                        999 1005.6
##
       ATMP WTMP DEWP VIS
##
       \langle num \rangle \langle num \rangle \langle num \rangle \langle num \rangle
## 1: 2.1 5.6 999
## 2: 1.7
## 3: 1.7
                  999
                       99
             5.6
             5.6
                  999
                       99
## 4: 1.7 5.6 999
## 5: 1.6 5.6 999
                       99
## ---
## 8732: 3.2 4.7 999
## 8733: 3.9 4.7
                  999
                        99
## 8734:
       5.5 4.7
                  999
                        99
## 8735: 6.4 4.7 999
## 8736: 6.3 4.7 999
##
## $`1993`
##
         YY
              MM
                  DD
                       hh
                            WD WSPD GST WVHT DPD APD MWD
                                                             BAR
##
      ## 1: 93
             1 1 0
                           241 7.6 8.6 0.9 10.0 7.4
                                                        999 1006.3
##
    2:
         93
                        1
                            245
                                7.3
                                     8.2
                                          0.8
                                             10.0
                                                   7.7
             1 1 2
## 3: 93
                           243 8.1
                                    8.9 0.8 10.0
                                                   8.0
                                                        999 1006.5
## 4: 93 1 1 3
## 5: 93 1 1 4
                           261 7.7 8.8 0.7 9.1 7.9
                                                        999 1006, 5
                           269
                                7.8
                                     8.6
                                          0.8
                                              9.1
                                                        999 1007.0
                  1 4
                                                   7.8
## ---
                  31 19
31 20
## 8689: 93
             12
                           228 9.7 12.1 0.8 3.4
                                                   3.4
                                                        217 1018.0
## 8690:
         93
              12
                           233 10.1 12.9
                                          0.8
                                              3.3
                                                   3.4
                                                        219 1018.6
                   31 21
## 8691: 93
             12
                           255 10.8 14.4 0.9 3.4 3.4
                                                        241 1019.7
             12
## 8692: 93
                           252 9.8 12.6 0.9 3.7 3.5
                                                        256 1020, 7
                  31 22
## 8693:
         93
              12
                  31
                       23
                           260 9.4 13.3 0.8 3.4 3.4
                                                        267 1021.7
       ATMP WTMP DEWP VIS
##
      <num> <num> <num> <num> <num>
##
    1: 6.7
            4.7 999
                      99.0
## 2: 7.1
             4.7 999
##
    3: 7.4 4.4 999 99.0
4: 7.8 4.4 999 99.0
## 5: 7.9 4.4 999 99.0
## 8689: -1.2 5.6
                  999 21.7
                  999 21.9
## 8690: -0.8 5.6
## 8691: -0.6
             5.6
                  999 24.1
## 8692: -0.8 5.6 999 25.6
## 8693: -1.1 5.5 999 26.7
```

```
## $`1994`
              MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1: 94
             1 1 0 248 9.9 12.2 0.7 3.6 3.4 267 1022.5
## 2:
                            252 10.3 13.3
                                          0.7 3.4
                                                         269 1022.7
         94
                        1
                                                   3.4
    3:
         94
                            259
                               11.7 14.7
                                          0.7
                                              3.4
                                                   3.4
                                                         270 1023, 4
               1
                   1
                        2
             1
## 4:
                            261 11.8 14.3 0.9 4.0 3.7
                                                        265 1023, 7
        94
                   1
                        3
## 5: 94
                  1 4
                            262 10.4 12.6 0.9 4.0 3.5 271 1024.1
             1
##
## 8683: 94
             12 31 19
                           160
                                5.7 6.7 0.4 10.0
                                                         74 1026.6
                                                   5.7
## 8684: 94
             12 31 20
                           183 5.0 6.3 0.4 8.3 4.5
                                                         72 1026, 5
## 8685:
         94
                       21
                            191
                                7.2
                                     9.1
                                          0.4 10.0
                                                         48 1025.8
              12
                   31
                                                   4.2
                      22
                               5.9 6.8 0.4 2.5 3.6
## 8686: 94
             12
                                                        163 1025, 7
                   31
                           192
                      23
                           186 7.7 9.9 0.5 2.9 3.3 171 1025.2
## 8687: 94
             12 31
##
    ATMP WIME אייבער
(num) (num) (num) (num)
        ATMP WTMP DEWP
                      VIS
## 1: -1.1 5.5 999 26.7
##
    2: -1.5
             5.5
                  999
                      26.9
## 3: -1.4 5.5 999 27.0
## 4: -1.6 5.5 999 26.5
## 5: -1.4 5.5 999 27.1
    5: -1.4 5.5 999 27.1
## 8683: 2.8 999.0 999
                      7.4
## 8684: 4.3 999.0 999
                      7.2
## 8685: 4.7 999.0 999
                      4.8
## 8686: 4.0 999.0 999 16.3
## 8687: 3.6 999.0 999 17.1
##
## $`1995`
                           WD WSPD GST WVHT DPD APD MWD
##
         YY
             MM DD hh
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
              1 1 0
    1:
                           198
                                7.8 9.8
                                          0.6 2.7
                                                   3.3
##
                                                        217 1023.8
    2:
         95
               1
                   1
                        1
                           206 8.8 11.6 0.6 3.0
                                                   3.3
## 3:
         95
                            204 9.9 12.0 0.7 3.1 3.3
                                                         226 1022, 5
                        2
##
    4:
         95
                   1
                        3
                            205 11.5 14.2
                                          0.8
                                              3.3
                                                   3.3
                                                         217 1021.5
              1
             1
                  1 4
## 5: 95
                           215 10.5 13.2 0.9 3.7 3.6 229 1021.4
## ---
                  31 19
## 8656:
             12
                            245
                                4.3
                                     5.3
                                          0.2 12.5
                                                   5.8
                                                         74 1014.2
                  31 20
## 8657: 95 12
                                          0.2 12.5
                                                         72 1014.3
                           245
                                4.6 	 5.6
                                                   4.5
## 8658: 95 12
                  31 21
                           231 3.3 4.2 0.2 14.3 4.8
                                                         77 1013, 5
## 8659:
         95
              12
                   31
                       22
                            232
                                3.2
                                     3.7
                                          0.2 12.5
                                                   6.1
                                                         82 1014.3
             12 31 23
## 8660: 95
                           226 3.3 4.1 0.2 14.3 6.4
                                                        77 1014.2
##
       ATMP WTMP DEWP VIS
##
       \langle num \rangle \langle num \rangle \langle num \rangle \langle num \rangle
## 1: 3.2 999.0 999 20.0
## 2: 3.5 999.0 999 21.7
## 3: 4.1 999.0 999 22.6
## 4: 5.1 999.0 999 21.7
## 5: 4.8 999.0 999 22.9
## ---
## 8656: 3.0 5.5 999
        3.2 5.5 999
## 8657:
                      7.2
## 8658·
        3 2
             5, 5 999
                      7.7
## 8659: 3.6 5.5 999
                      8.2
## 8660: 3.6 5.5 999
                       7.7
##
## $`1996`
##
         YY
              MM
                  DD
                       hh
                            WD WSPD GST WVHT DPD APD MWD
                                                             BAR
##
      ## 1: 96
             1 1 0
                           218 2.9 3.4 0.16 12.50 6.36 86 1013.9
##
    2:
                        1
                            225
                                2.8
                                     3. 2 0. 17 12. 50 7. 35
             1
                  1 2
## 3: 96
                           234
                                1.9 2.3 0.18 12.50 7.21
                                                         74 1013.5
## 4: 96
             1 1 3
                           233 2.8 3.8 0.17 12.50 6.93
                                                         77 1013.3
##
                           263
                                3.2
                                     3.8 0.15 12.50 7.36
    5:
         96
              1
                  1 4
                                                         89 1013.4
## ---
                  31 19
31 20
## 8948: 96
             12
                           337 7.6 9.8 0.86 4.55 3.85
                                                         49 1021, 2
## 8949:
         96
              12
                            334
                                8.0 10.7 1.00 5.26 3.83
                                                          49 1021.1
                   31 21
## 8950: 96
                            326 8.6 10.5 1.23 5.00 4.09
             12
                                                         48 1021.9
## 8951: 96
             12
                           323 11.0 13.6 1.31 5.88 4.19
                                                         47 1023, 1
                  31 22
## 8952:
         96
              12
                   31
                       23
                            332 9.4 12.2 1.32 5.26 4.13
                                                         47 1024.1
## ATMP WTMP DEWP VIS
##
      <num> <num> <num> <num> <num>
##
    1: 3.6
             5.5 999
                       99
## 2: 3.5
             5.5
##
    3: 3.2
4: 3.5
                  999
             5. 5
                        99
             5.5
                 999
                        99
## 5: 3.2 5.5 999
##
## 8948: -7.0
             6.3
                  999
                        99
## 8949: -7.1
             6.3
                  999
                        99
## 8950: -7.2
             6.3
                  999
                        99
## 8951: -7.6
             6.3
                  999
                        99
## 8952: -8.0 6.3 999
```

```
## $`1997`
              MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1:
         97
             1 1 0 322 10.7 13.7 1.27 4.17 4.13
                                                        5 1024.9
## 2:
         97
                            312 10.8 13.8 1.41 5.26 4.14
                        1
                                                         40 1026.2
##
    3:
         97
                            323 11.4 14.0 1.43 4.55 4.25
                                                         355 1026.8
                   1
                        2
               1
             1
## 4: 97
                            336 11.4 14.2 1.57 5.56 4.40
                   1
                        3
                                                         42 1027, 3
## 5: 97
                            333 10.9 14.0 1.83 6.67 4.76
                                                         45 1027.6
             1
##
## 5708: 97
             12 31 19
                            274 10.4 13.5 1.06 3.85 4.07
                                                         999 1004.0
## 5709: 97
             12 31 20
                            290 9.7 12.5 1.02 12.50 4.03
                                                         999 1005, 6
## 5710:
         97
                       21
                            289
                               10.1 12.0 1.04 11.11 4.27
                                                         999 1007.7
              12
                   31
## 5711: 97
                            305 10.4 13.4 0.91 12.50 3.93
                                                         999 1009.7
             12
                   31
                       22
## 5712: 97
             12 31
                      23
                            304 13.6 16.9 1.28 4.00 3.96
                                                         999 1011, 5
##
        ATMP WTMP DEWP
                       VIS
    ATMP WIME DET.
## 1: -8.3 6.3 999
                      99
##
    2: -9.1
             6.3
                  999
                        99
## 3: -9.2 6.3 999
##
    4: -9.7 6.3 999
                       99
    5: -10.6
             6.3 999
                       99
## 5708: -1.5 5.9 999
## 5709: -1.8 5.6 999
                       99
                       99
## 5710: -3.1 5.5
                  999
## 5711: -3.7
             5.2 999
                        99
## 5712: -4.8
             5.1
                  999
                        99
## $`1998`
        YY
                           WD WSPD GST WVHT DPD APD MWD BAR
##
             MM DD hh
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
              1 1 0
    1:
                            295 10.8 15.4 1.34 4.35 4.24
##
    2:
         98
               1
                   1
                        1
                            287 10.6 13.9 1.29 4.35 4.11
                                                         999 1015. 4
## 3: 98
                            286 11.7 15.5 1.12 4.00 4.00
                                                         999 1016.3
                        2
##
    4:
         98
                   1
                        3
                            286 11.9 15.0 1.04 4.00 3.94
                                                         999 1017.1
              1
                      4
## 5: 98
             1
                  1
                           295 12.2 14.7 1.26 4.17 4.02 999 1017.9
## ---
                  31
## 8780:
             12
                      19
                            242
                                6.9
                                     9.1 0.56 11.11 3.56
                                                         999 1017.8
                  31 20
## 8781: 98 12
                                6.6 8.6 0.53 2.86 3.58
                                                         999 1017.7
                           242
## 8782: 98 12
                  31 21
                           229 6.2 8.5 0.43 2.94 3.48
                                                         999 1017.9
## 8783:
         98
              12
                   31
                       22
                            207
                                5.6
                                     7.7 0.39 10.00 4.25
                                                        999 1017.7
## 8784: 98
             12 31 23
                            213 5. 2 7. 5 0. 35 11. 11 4. 81 999 1017. 4
##
       ATMP WTMP DEWP VIS
##
       <num> <num> <num> <num> <num>
## 1: -5.9 5.1 999
## 2: -6.5
## 3: -7.0
                  999
                       99
             5. 1
    3: -7.0
             5.2
                  999
                       99
## 4: -7.6 5.6 999
## 5: -8.1 5.6 999
                       99
## ---
## 8780: -5.5 5.9
                  999
## 8781: -5.1
             5.8
                  999
                       99
## 8782: -4.6
             5.6
                  999
                        99
## 8783: -4.4 5.8 999
## 8784: -4.5 5.6 999
##
## $`1999`
##
       YYYY
              MM
                  DD
                       hh
                            WD WSPD GST WVHT DPD APD MWD
                                                             BAR
##
      ## 1: 1999
             1 1 0
                           221 5.4 7.2 0.33 11.11 5.25
                                                         999 1017.4
    2: 1999
                        1
                            218
                                5.6
                                     7.3 0.31 11.11 5.51
                  1 2
## 3: 1999
             1
                                                         999 1015.8
                           226 5.7
                                    7. 0 0. 32 12. 50 6. 53
## 4: 1999
             1 1 3
                           228 5.7 7.3 0.31 11.11 6.17
                                                         999 1015.3
##
    5: 1999
                           237
                                     7.7 0.39 11.11 5.02
                                                         999 1015.0
              1
                  1 4
                                5.9
## ---
             12 31 19
12 31 20
## 8344: 1999
                           340 4.9 6.5 0.65 9.09 3.92
                                                         999 1017.2
                                                         999 1017.4
## 8345: 1999
                            350
                                4.5
                                     5.9 0.58 4.17 4.04
                   31 21
             12
## 8346: 1999
                           346 3.2 4.6 0.58 11.11 4.24
                                                         999 1018.0
## 8347: 1999
                           360 3.3 4.1 0.51 10.00 4.21
                                                        999 1018, 1
             12 31 22
## 8348: 1999
              12
                  31
                       23
                            5 1.2 2.3 0.51 10.00 4.40
                                                         999 1018.7
## ATMP WTMP DEWP VIS
##
      <num> <num> <num> <num> <num>
## 1: -4.3
             5.6 999.0
## 2: -4.0
             5.7 999.0
## 3: -3.9
## 4: -3.9
             5. 7 999. 0
                       99
    4: -3.9
             5.7 999.0
                       99
## 5: -3.8 5.6 999.0
## ---
## 8344: 0.1
             5.9 -8.0
## 8345: 0.5 5.9 -8.2
## 8346:
        0.8
             5.9 -5.5
                        99
## 8347: 0.9 5.9 -4.3
                        99
## 8348: 1.2 5.9 -3.5
```

```
## $`2000`
             V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int> <num>
##
    1: 2000
             1 1 0 315 0.8 1.5 0.54 10.00 4.55
                                                         999 1019. 2
## 2: 2000
                            271
                                 0.7
                                     1.9 0.53 4.55 4.61
                                                         999 1020.3
                         1
    3: 2000
                         2
                            232
                                 2.3
                                     3.1 0.52 4.76 4.78
                                                         999 1020, 4
                   1
                 1
             1
## 4: 2000
                            236 2.9 3.8 0.52 10.00 4.86
                        3
                                                         999 1021.0
## 5: 2000
             1 1 4
                            232 4.1
                                     4.9 0.50 10.00 5.00
                                                         999 1021, 2
## 5108: 2000
             7 31 19
                            59 3.3 3.8 0.61 9.09 4.68
                                                         999 1024.1
             7 31 20
7 31 21
## 5109: 2000
                            45 3.9 4.7 0.59 9.09 4.94
                                                         999 1023, 6
## 5110:
       2000
                             56
                                 3.8 4.5 0.53 8.33 4.71
                                                         999 1023.5
              7 31 22
## 5111: 2000
                             63 4.3 5.1 0.56 8.33 4.94
                                                         999 1023, 4
        2000 7 31 23
V13 V14 V15 V16
                      23
## 5112: 2000
                            56 4.2 5.0 0.61 8.33 5.20
                                                         999 1022, 8
##
       <num> <num> <num> <num> <num>
## 1: 1.1 5.9 -3.6 99
##
    2:
        1.2
             5.9 -3.6
## 3: 1.5 5.8 -3.3
## 4: 1.3 5.9 -3.6
## 5: 0.9 5.9 -4.0
                        99
                        99
## 5108: 17.2 17.6 16.0
                        99
## 5109: 17.2 17.6 16.0
                        99
## 5110: 17.2 17.6 15.9
## 5111: 17.2 17.6 16.0
                        99
## 5112: 17.2 17.6 16.0
                        99
## $ 2001
## YYYY
             MM DD hh
                            WD WSPD GST WVHT DPD APD MWD BAR
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
              1 1 0
    1: 2001
                            255 13.2 16.4 1.49 4.76 4.30
## 2: 2001
               1
                   1
                        1
                            255 14.3 17.5 1.50 4.35 4.17
                                                         999 1002.0
## 3: 2001
                            263 15.8 19.9 1.68 4.76 4.31
                                                         999 1002, 4
                         2
##
    4: 2001
                   1
                        3
                            267 14.4 17.5 1.64 5.00 4.37
                                                         999 1003, 6
              1
                 1
             1
                      4
## 5: 2001
                            270 13.9 17.6 1.55 4.76 4.21 999 1004.6
## ---
                   31 19
## 8756: 2001
              12
                            248
                               9.3 11.1 0.67 3.45 3.21
                                                         999 1009.9
             12 31 20
## 8757: 2001
                            242 8.9 10.7 0.69 3.23 3.15
                                                         999 1010.3
## 8758: 2001
             12 31 21
                            240 10.5 99.0 99.00 99.00 99.00
                                                         999 9999 0
## 8759: 2001
              12
                   31
                       22
                            244 8.6 99.0 99.00 99.00 99.00
                                                         999 9999 0
             12 31 23
## 8760: 2001
                            244 8.4 11.3 0.77 3.57 3.31 999 1011.9
    ATMP WTMP DEWP VIS TIDE
##
##
       <num> <num> <num> <num> <num> <num>
## 1: -1.5 4.3 -7.6 99
## 2: -1.9 4.3 -7.1
## 3: -1.9 4.3 -7.3
                       99
                             99
    3: -1.9 4.3 -7.3
                       99
                             99
## 4: -2.1 4.3 -7.2 99 99
## 5: -2.2 4.4 -8.3 99
                            99
## ---
## 8756: -0.3 7.0 -8.7
                             99
## 8757: 0.1 7.0 -8.9
                        99
                             99
## 8758: 999.0 999.0 999.0
                        99
                             99
## 8759: 999.0 999.0 999.0
## 8760: 0.1 6.7 -8.9
                             99
##
## $`2002`
##
       YYYY
              MM
                  DD
                       hh
                            WD WSPD GST WVHT DPD APD MWD
                                                              BAR
##
       ## 1: 2002
             1 1 0
                            227 8.5 10.4 0.60 3.23 3.13
                                                         999 1012.9
    2: 2002
                    1
                         1
                            234
                                 9.5 11.5 0.66 3.13 3.09
                  1 2
## 3: 2002
             1
                            232 9.7 12.4 0.73 3.57 3.26
                                                         999 1013.9
## 4: 2002
             1 1 3
                            255 10.5 12.5 0.80 3.70 3.37
                                                         999 1013, 5
##
                            261 10.1 12.4 0.79 3.70 3.45
    5: 2002
                  1 4
                                                         999 1013.4
## ---
             12 31 19
12 31 20
## 8756: 2002
                            183 4.5 5.8 0.96 5.56 4.16
                                                         999 1015.0
                                                         999 1014.6
## 8757: 2002
                            313
                                 2.0
                                     2.4 0.93 4.55 4.31
                   31 21
## 8758: 2002
             12
                            316 2.0 2.5 0.98 6.25 4.62
                                                         999 1014.7
             12
## 8759: 2002
                            330 2.6 3.2 0.99 6.67 4.98 999 1014.3
                   31 22
## 8760: 2002
              12
                   31
                       23
                            322
                                 0.8 1.8 1.11 7.14 5.12
                                                         999 1013.6
       ATMP WTMP DEWP VIS TIDE
##
      <num> <num> <num> <num> <num> <num>
## 1: 0.0 6.7 -8.4 99
                            99
## 2: 0.0
             6.7 -8.3
## 3: -0.5 6.7 -8.1
## 4: -0.4 6.7 -8.1
                       99
                             99
    4: -0.4 6.7 -8.1
                       99
                             99
## 5: -0.4 6.7 -8.5
##
## 8756: 5.1
             6.0 4.8
                             99
## 8757: 4.4 6.0 4.2
                       99
                             99
## 8758: 4.8 6.0 4.6
## 8759: 4.7 6.0 4.6
                        99
                             99
                       99
                             99
## 8760: 4.5 6.0 4.4 99
                             99
```

```
## $`2003`
  YYYY
              MM DD hh WD WSPD GST WVHT DPD APD MWD BAR
##
      ##
    1: 2003
             1 1 0 153 0.6 1.2 0.99 6.67 5.03
                                                       999 1012.8
## 2: 2003
                           183 3.4
                                    3.8 0.93 6.67 4.92
                                                       999 1012.6
                        1
    3: 2003
                        2
                           180
                               4.2
                                    5.0 0.89 6.25 4.91
                                                       999 1011.8
                   1
              1
             1
## 4: 2003
                                    7, 4 0, 80 6, 67 4, 89
                  1
                       3
                           207
                               6.4
                                                       999 1011.1
## 5: 2003
                 1 4
                           204 7.3 8.2 0.70 6.67 4.73 999 1010.3
##
## 8755: 2003
             12 31 19
                           276 5.4
                                    6, 5 0, 48 3, 23 3, 09
                                                       999 1019.0
## 8756: 2003
             12 31 20
                           237 3.7
                                    4.3 0.28 2.86 3.03
                                                       999 1018.9
## 8757:
       2003
                      21
                           208
                                    3.6 0.18 2.50 3.24
                                                       999 1018.1
              12
                  31
                                3.0
                     22
## 8758: 2003
                           185
                              4.3 5.2 0.00 0.00 0.00
                                                       999 1017.4
             12
                  31
                      23
## 8759: 2003
             12 31
                           161 4.6 5.3 0.00 0.00 0.00
                                                       999 1016, 6
##
       ATMP WTMP DEWP VIS
                           TIDE
       <num> <num> <num> <num> <num> <num>
## 1: 4.7 6.0 4.6 99
                           99
##
    2:
        4.7
             6.0
                 4.6
                       99
                            99
## 3: 5.0 6.0 4.9
                      99
                            99
## 4: 5.9 6.0 5.8
## 5: 6.0 6.0 5.3
                      99
                           99
    5: 6.0 6.0 5.3
                       99
                            99
## 8755: 5.5 5.2 -1.4
                            99
                       99
## 8756: 5.7
            5.2 0.0
                       99
                            99
## 8757: 5.6 5.2 0.7
## 8758: 5.9 5.2 0.0
                       99
                            99
## 8759: 5.5 5.2 -0.3
                       99
                            99
##
## $ 2004
## YYYY
             MM DD hh WD WSPD GST WVHT DPD APD MWD
##
      <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int> <num>
              1 1 0
    1: 2004
                           184 8.6 10.5 0.17 2.50 3.03
## 2: 2004
              1
                   1
                       1
                           214 9.7 11.7 0.43 2.78 2.89
                                                       999 1014. 2
## 3: 2004
                           227 9.9 12.2 99.00 99.00 99.00
                                                       999 1013.8
                        2
##
    4: 2004
                   1
                       3
                           232 11.8 14.5 0.96 3.45 3.34
                                                       999 1013.0
              1
                 1
             1
                     4
## 5: 2004
                           232 9.2 11.3 1.00 3.57 3.43
                                                       999 1013.2
## ---
                  31 19
## 8757: 2004
             12
                           153
                               7.5
                                    8.8 0.96 4.35 3.85
                                                       999 1025.9
             12
                  31 20
## 8758: 2004
                               6. 2 7. 4 0. 96 4. 76 3. 92
                                                       999 1025.6
                           165
## 8759: 2004
             12 31 21
                           172 6.4 7.2 0.96 4.35 4.00
                                                       999 1025 0
## 8760: 2004
             12
                  31
                       22
                           175
                                8.1
                                    9.9 0.87 4.76 3.91
                                                       999 1023.8
            12 31 23
## 8761: 2004
                           176
                               9.2 10.4 0.88 4.17 3.69
                                                       999 1023.0
##
       ATMP WTMP DEWP VIS TIDE
##
       <num> <num> <num> <num> <num> <num>
## 1: 5.2 5.2 999.0 99
##
    2: 5.1
3: 4.8
             5.2 0.0
                       99
                            99
             5.2 -0.8
                       99
                            99
## 4: 5.1 5.2 -0.2 99
                            99
## 5: 5.2 5.2 -0.7 99
## ---
                           99
## 8757: 6.3 6.3 4.9
                            99
## 8758: 6.6 6.3 5.4
                       99
                            99
## 8759·
       7.4
            6.3 5.9
                       99
                            99
## 8760: 7.4 6.3 6.3
                       99
## 8761: 7.4 6.3 6.7
                       99
                            99
##
## $`2005`
##
       YYYY
             MM
                  DD
                      hh
                                WD WSPD GST WVHT DPD APD
                            mm
##
      <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2005
             1 1 0
                           0 187
                                    9. 0 10. 1 0. 85 3. 23 3. 58
                                                            999
##
    2: 2005
                        1
                             0
                                193
                                    8.3 10.5 0.78 3.85 3.57
                 1 2
## 3: 2005
             1
                            0 212
                                    7.0 8.9 0.90 3.13 3.50
## 4: 2005
             1 1 3 0 210 8.8 11.2 1.00 4.17 3.70
                                                            999
##
    5: 2005
                            0 237
                                    6.8
                  1 4
                                         8.0 1.00 3.33 3.79
                                                            999
## ---
                           0 56
             12 31 19
12 31 20
12 31 21
## 8704: 2005
                                    4. 3 5. 7 0. 98 11. 11 5. 64
                                                            999
## 8705: 2005
                            0
                                56
                                    3.4 4.5 1.06 10.00 5.49
                                                            999
             12
                           0
## 8706: 2005
                                52 2.9 4.7 1.07 11.11 5.65
                                                            999
## 8707: 2005
             12
                                59 5.1 6.7 1.03 11.11 5.49
                  31 22
                            0
                                                            999
## 8708: 2005
             12
                  31
                      23
                            0
                                52 4.5 7.2 1.00 11.11 5.28
                                                            999
        BAR ATMP WTMP DEWP VIS TIDE
##
       ##
    1: 1022.6 7.6 6.3 7.1
                                 99
                             99
## 2: 1022.1
             8.3 6.3 6.1
    3: 1022.0 8.2 6.3 5.2
4: 1021.1 8.7 6.3 5.1
##
                             99
                                 99
##
                             99
                                 99
  5: 1021.4 7.9 6.3 5.0
## 8704: 1011.0 0.4 5.8 999.0
                             99
                                 99
## 8705: 1011.1 0.4 5.9 999.0
                                 99
99
                                 99
## 8707: 1011.1 1.1 5.9 -2.7
                             99
                                 99
## 8708: 1011.4 1.4 5.8 -0.8
                             99
                                 99
```

```
## $`2006`
                                 WD WSPD GST WVHT DPD APD MWD
## YYYY
              MM DD hh
                            mm
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2006
              1
                  1 0
                            0 74 5.3 6.1 0.92 11.11 5.01
## 2: 2006
                              0
                                  83
                                      4.9
                                           6.0 0.89 10.00 5.09
                         1
    3: 2006
                         2
                              0
                                  82
                                      5.3 6.9 0.84 11.11 4.78
                    1
               1
## 4: 2006
                                      8.9 10.9 0.99 11.11 4.32
               1
                    1
                         3
                              0
                                  62
                                                               999
## 5: 2006
                   1 4
                             0 56 9.8 11.5 1.40 4.55 4.16
##
## 8719: 2006
              12 31 19
                            0 305
                                      4.5 6.0 0.57 4.55 3.49
                                                               999
              12
## 8720: 2006
                   31 20
                            0 321 3.2 4.8 0.47 4.55 3.69
                                                               999
## 8721:
        2006
                        21
                              0
                                 276
                                           5.0 0.40 4.35
              12
                   31
                                      3.1
                                                         4.09
                                                               999
                   31 22
## 8722: 2006
                             0 313 3, 3 4, 4 0, 41 5, 88 4, 26
              12
                                                               999
## 8723: 2006
              12 31 23
                             0 303 2.8 3.7 0.39 5.56 4.30
                                                               999
##
         BAR ATMP WTMP DEWP
                            VIS TIDE
        ## 1: 1011.8 0.6 5.8 -0.7 99
                                  99
##
    2: 1011.5
              0.7
                   5.8 0.4
                              99
                                   99
## 3: 1010.7 1.3 5.8 0.4
                              99
    4: 1009.6 1.7 5.8 1.3
##
                              99
                                   99
    5: 1009.3 1.1
                   5.8 0.4
                              99
                                   99
## 8719: 1028.8 2.2 7.1 999.0
                              99
                                   99
## 8720: 1028.8
              2.7
                   7.1 999.0
                              99
                                   99
## 8721: 1028.9 3.2 7.1 999.0
## 8722: 1029.0 3.5 7.1 999.0
                              99
                                   99
## 8723: 1028.9 3.8 7.1 999.0
                              99
                                   99
## $ 2007
                            mm WDIR WSPD GST WVHT DPD APD MWD
              MM DD hh
##
        #YY
##
      <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
               1 1 0
    1: 2007
                             0 209
                                     2.2
                                           3.1 0.39 5.00 4.32
## 2: 2007
               1
                    1
                         1
                              0
                                 184
                                      1.6 2.3 0.37 4.76 4.33
                                                               999
## 3: 2007
                              0 \quad 173 \quad 2. \ 8 \quad 4. \ 0 \quad 0. \ 33 \quad 4. \ 17 \quad 4. \ 24
                         2
                  1 3
1 4
##
    4: 2007
                              0
                                 183
                                      5.6
                                           6.7 0.32 4.17 4.19
               1
              1
## 5: 2007
                             0 201
                                      6.0
                                           7.1 0.32 2.50 3.38
                                                               999
## ---
                   31 19
## 8690: 2007
              12
                             0 271 11.7 13.9 1.47 7.69 4.75
                   31 20
## 8691: 2007
              12
                            0 280 11.8 14.9 1.68 7.69 4.62
                                                               999
              12
## 8692: 2007
                   31 21
                             0 271 12.8 16.1 1.58 8.33 4.49
                                                               999
                   31 22
31 23
## 8693: 2007
              12
                              0
                                 278 12.1 14.5 1.50 4.35 4.44
                                                               999
              12
## 8694: 2007
                             0 272 12.7 15.5 1.42 4.35 4.29
##
        PRES ATMP WTMP DEWP VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num>
## 1: 1029.0 3.6 7.1 999.0 99
##
                   7.1 999.0
    2: 1028.8
                              99
                                   99
              3. 5
##
    3: 1028.9
              3.6
                   7.1 999.0
                              99
                                   99
## 4: 1028.3 3.1 7.1 999.0
                                   99
## 5: 1028.7 2.8 7.1 999.0
                             99
                                   99
##
## 8690: 1007.4 4.2 4.0 0.3
                                   99
## 8691: 1008.9 4.4 4.3 -0.2
                              99
                                   99
                   4.3 -0.9
## 8692: 1010.6
              4.7
                              99
                                   99
## 8693: 1012.2 4.7 4.4 -1.1
                                   99
## 8694: 1013.7 4.3 4.6 -1.3
                              99
                                   99
##
## $`2008`
##
        #YY
              MM
                   DD
                       hh
                             mm WDIR WSPD GST WVHT DPD APD
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2008
             1 1 0
                              0 274 11.6 14.1 1.40 4.17 4.17
    2: 2008
                         1
                              0
                                 282 10.6 12.9 1.23 4.17 4.02
                       2
## 3: 2008
              1
                   1
                             0 284 9.5 11.5 1.05 4.00 3.99
## 4: 2008
             1 1 3
                            0 282 7.3 8.7 0.85 3.45 3.79
                                                               999
##
    5: 2008
                             0
                                 268
                                           6.0 0.64 7.69 4.09
                   1 4
                                      4.9
                                                               999
## ---
              12
                   31 18
31 19
## 8741: 2008
                             50
                                  16 14.4 16.9 2.33 5.88 5.01
                                                               999
## 8742: 2008
                             50
                                  19 14.5 16.9 2.67 6.25 5.26
                                                               999
              12
                   31 20
## 8743: 2008
                                 4 13.6 16.2 3.07 6.67 5.68
              12
                             50
                                                               999
              12
## 8744: 2008
                                 335 13.5 16.2 2.53 7.14 5.27
                   31 21
                             50
                                                               999
## 8745: 2008
              12
                   31
                        22
                             50
                                 329 13.7 16.4 2.43 7.14 5.24
                                                               999
        PRES ATMP WTMP DEWP VIS TIDE
##
       <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1015.3 4.0 4.7 -1.6
                                   99
## 2: 1016.4
              3.6 4.7 -1.7
##
    3: 1017.8
              3.3 4.8 -1.6
                              99
                                   99
    4: 1018.9 3.2 4.8 -1.7
##
                              99
                                   99
  5: 1019.5 2.8 4.8 -1.4
## 8741: 996.8 -1.9
                   5, 6 -2, 2
                              99
                                   99
## 8742: 997.2 -3.0 5.6 -3.2
                                   99
## 8743: 997.9 -2.9
                   5.6 -4.1
                              99
                                   99
## 8744: 1000.0 -4.4 5.6 -5.2
                              99
                                   99
## 8745: 1001.3 -4.9 5.6 -5.9
                              99
                                   99
```

```
## $ 2009
                             mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
                  DD hh
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2008
              12
                  31 23
                             50 326 14.4 17.3 2.52 7.14 5.27
                                                                 999
## 2: 2009
                          0
                              50
                                  316 16.7 19.7 2.65 7.14 5.05
                    1
    3: 2009
                              50
                                  307 15.7 19.0 3.01 6.25 5.27
                                                                 999
                     1
                          1
##
                                  315 17.0 20.7 2.65 5.88 5.19
    4: 2009
               1
                    1
                         2
                              50
                                                                 999
                   1 3
## 5: 2009
                             50 315 16.5 20.8 3.05 5.56 5.34
## 8728: 2009
              12 31 18
                             50 274
                                       4. 2 5. 7 0. 42 11. 43 3. 61
                                                                 999
## 8729: 2009
              12 31 19
                             50 258 3.6 4.7 0.39 11.43 3.38
                                                                 999
## 8730:
        2009
                         20
                              50
                                   55
                                             1.3 0.35 10.81 4.14
               12
                    31
                                       0.4
                                                                 999
                    31 21
## 8731: 2009
                                  339 1.3 2.2 0.34 12.12 5.39
               12
                              50
                                                                 999
## 8732: 2009
              12 31 22
                              50
                                  15 0.7 1.7 0.35 12.12 5.42
                                                                 999
##
         PRES ATMP WTMP DEWP
                              VIS TIDE
        ## 1: 1002.4 -5.3 5.6 -6.8 99
                                   99
##
     2: 1003.2 -7.7
                    5.6 -9.6
                               99
                                    99
    3: 1003.9 -8.7 5.6 -12.0
                               99
    4: 1004.8 -10.1 5.5 -13.2 99
5: 1005.5 -10.6 5.5 -13.2 99
##
                                    99
##
    5: 1005.5 -10.6
                   5.5 -13.2
                               99
                                    99
## 8728: 1021.8 -0.8 6.0 -1.6
                                    99
                               99
## 8729: 1022.1 -0.8
                   6.0 -1.4
                               99
                                    99
## 8730: 1021.0 -0.5
                    5.9 -1.1
## 8731: 1021.2 -0.2
                   5.9 -0.9
                               99
                                    99
## 8732: 1020.8 0.5
                   5.9 0.3
                               99
                                    99
## $ 2010
                              mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
                   DD hh
##
               MM
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
    1: 2009
                    31
                        23
                              50
                                   37
                                       1.2
                                            2.0 0.35 12.12 5.43
## 2: 2010
                                   32 2.5
               - 1
                    - 1
                         0
                              50
                                            3, 5, 0, 35, 12, 12, 5, 02
                                                                 999
                                  2 4.1 5.1 0.38 12.90 5.19
## 3: 2010
                              50
                         1
                   1 2
1 3
##
     4: 2010
                              50
                                    4
                                       4.3
                                             5.5 0.38 12.12 4.94
               1
              1
## 5: 2010
                                       5.4
                                            6, 5 0, 41 13, 79 3, 62
                             50 355
                                                                 999
## ---
                   31 18
## 7840: 2010
              12
                              50
                                  216
                                       2.2
                                            2.4 0.18 99.00 3.21
                    31 19
## 7841: 2010
              12
                                  221
                                            4.5 0.17 99.00 4.11
                              50
                                       4.0
                                                                 999
              12
## 7842: 2010
                   31 20
                             50
                                  203 2.8 3.3 0.17 99.00 3.85
                                                                 999
## 7843:
        2010
               12
                    31
                         21
                              50
                                  190
                                       4.1
                                            4.6 0.16 99.00 3.85
                                                                 999
                   31 22
              12
                                  213 3.7 4.2 0.17 99.00 3.77
## 7844: 2010
                              50
##
        PRES ATMP WTMP DEWP
                             VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num>
  1: 1020.0 1.0 5.9 -0.2
##
    2: 1019.4
                    6.0 -0.6
                               99
                                    99
              1.5
##
    3: 1018.4
               1.4
                    6.0 -0.7
                               99
                                    99
## 4: 1017.8 1.1 6.0 -0.8
                                    99
## 5: 1016.8 0.8 6.1 -0.6
                              99
                                    99
##
## 7840: 1018.4 7.2 6.5 3.2
                                    99
## 7841: 1018.6
              7. 5
                   6.5 3.0
                               99
                                    99
## 7842: 1018.6
              7.4
                    6.4 3.8
                               99
                                    99
## 7843: 1018.3 7.0 6.3 4.0
                                    99
## 7844: 1018.5
              7.0 6.2 3.5
                               99
                                    99
##
## $`2011`
##
        #YY
               MM
                   DD
                        hh
                              mm WDIR WSPD GST WVHT DPD APD
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2010
             12
                    31 23
                              50
                                  225
                                       3.8
                                            4.2 0.16 99.00 4.05
                                                                 999
    2: 2011
                    1
                          0
                              50
                                   234
                                       4.9
                                             5, 7 0, 19 99, 00 2, 74
                       1
## 3: 2011
                                       5.8 7.1 0.25 99.00 2.56
               1
                              50
                                  234
                    1
## 4: 2011
              1 1 2 50 233 5.7 6.8 0.39 2.47 2.58
                                                                 999
##
                             50
                                  227
                                             7.2 0.43 2.47 2.57
    5: 2011
                   1 3
                                       6.4
                                                                 999
##
              12 31 18
12 31 19
                             50
## 8742: 2011
                                  180
                                       0.0 0.1 99.00 99.00 99.00
                                                                 999
## 8743: 2011
                              50
                                  281
                                       2.4
                                             3.8 99.00 99.00 99.00
                                                                 999
                    31 20
## 8744: 2011
                                       2.4 3.7 99.00 99.00 99.00
               12
                              50
                                  287
                                                                 999
              12
## 8745: 2011
                    31 21
                              50
                                  286
                                       2.8 4.5 99.00 99.00 99.00
                                                                 999
## 8746: 2011
               12
                    31
                         22
                              50
                                  289
                                       2.6 3.7 99.00 99.00 99.00
                                                                 999
        PRES ATMP WTMP DEWP VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num>
##
    1: 1018.7
              6.8 6.2 3.5
                                    99
               6.4
## 2: 1018.5
                    6, 2 2, 5
##
    3: 1018.3 6.1 6.1 2.3
4: 1018.0 5.8 6.1 1.7
                               99
                                    99
##
                               99
                                    99
  5: 1017.8 5.7 6.1 1.3
## 8742: 1008.4 4.9 5.7 4.2
                                    99
## 8743: 1008.0 5.4 6.1 4.3
                                    99
              5.7 9.1 4.2
5.7 7.4 4.3
## 8744: 1008.1
                               99
                                    99
## 8745: 1008.9
                               99
                                    99
## 8746: 1009.5 5.6 6.4 4.8
                               99
                                    99
```

```
## $`2012`
                             mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
              MM DD hh
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2012
              6
                 30 23
                            50 253 3.4 4.2 0.52 9.09 5.33
## 2: 2012
                         0
                              50
                                  198
                                      3.5
                                            4.1 0.53 7.69 5.41
                    1
    3: 2012
                              50
                                  199
                                       4.0
                                           4.7 0.48 10.00 5.60
                                                                102
                    1
                         1
                       2
## 4: 2012
                   1
                                      3.9 4.4 0.45 9.09 5.20
               7
                             50 218
                                                                87
## 5: 2012
                   1 3
                             50 222
                                      4.5 4.8 0.41 7.69 4.68
## 4405: 2012
              12 31 18
                             50 277 11.6 14.2 0.95 4.00 3.61
## 4406: 2012
              12 31 19
                             50 271 10.9 13.3 0.90 4.17 3.54
                                                                266
## 4407:
        2012
                        20
                              50
                                  274
                                      9.6 11.1 0.91 3.85 3.60
              12
                   31
                                                                273
                   31 21
                                 277 10.0 12.2 0.84 3.70 3.53
## 4408: 2012
              12
                             50
                                                                267
## 4409: 2012
              12 31 22
                             50 257 7.4 9.7 0.65 3.70 3.36
##
         PRES ATMP WTMP DEWP
                             VIS TIDE
        <num> <num> <num> <num> <num> <num> <num> <num>
## 1: 1005.4 23.2 18.2 15.7 99
                                  99
##
    2: 1005.7 22.0 18.2 16.8
                                   99
    3: 1006.1 21.6 18.1 17.8
    4: 1006.1 21.6 18.0 17.7
##
                              99
                                   99
##
    5: 1006.5 21.5 17.7 17.8
                             99
                                   99
## 4405: 1012.2 1.6 7.7 -3.6
## 4406: 1012.2 1.3 7.8 -3.9
                                   99
                               99
                               99
                                   99
## 4407: 1012.3 1.6 7.8 -3.8
## 4408: 1012.1 2.0 7.8 -3.7
                               99
                                   99
## 4409: 1011.5 2.0 7.8 -4.1
                               99
                                    99
## $`2013`
                             mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
              MM DD hh
##
##
      <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
    1: 2012
                   31
                        23
                             50
                                 234 8.5 10.2 0.42 3.33 3.14
## 2: 2013
               - 1
                    - 1
                         0
                             50
                                 246 9.0 10.9 0.52 2.86 2.94
## 3: 2013
                              50 243 7.3 9.4 0.50 3.33 3.05
                         1
                   1 2
1 3
##
    4: 2013
                             50
                                  252 10.5 12.4 0.50 3.03 2.99
               1
              1
## 5: 2013
                            50 256 10.9 13.0 0.65 3.70 3.28
                                                                265
## ---
                   31 18
31 19
## 8205: 2013
              12
                             50
                                 267
                                      5.1
                                           7.1 0.59 10.81 4.03
## 8206: 2013
              12
                             50 276 4.4 6.9 0.57 10.00 4.33
                                                                 86
              12
## 8207: 2013
                   31 20
                             50 278 5.6 7.2 0.55 10.00 4.48
                                                                 97
                   31 21
31 22
## 8208: 2013
              12
                              50
                                  254
                                      6.7
                                            9.2 0.52 10.81 4.59
                                                                 67
             12
                                      8.4 11.0 0.65 10.00 3.79
## 8209: 2013
                             50
                                  257
##
        PRES ATMP WTMP DEWP VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num>
## 1: 1011.6 1.5 7.7 -3.7 99
##
    2: 1010.8
                   7.7 -4.1
                              99
                                   99
              1.5
##
    3: 1010.0
              1.8
                   7.7 -4.0
                               99
                                   99
## 4: 1009.0 2.4 7.7 -3.8
                                   99
## 5: 1008.1 2.6 7.7 -3.8
                             99
                                   99
##
## 8205: 1017.5 -5.8 5.9 -14.8
                                    99
## 8206: 1017.4 -4.8
                   5.8 -14.6
                               99
                                   99
## 8207: 1018.2 -3.9
                   5, 8 -13, 3
                               99
                                    99
## 8208: 1018.6 -2.8 5.7 -12.0
                                    99
## 8209: 1019.3 -2.0 5.8 -10.0
                              99
                                   99
##
## $`2014`
##
        #YY
              MM
                   DD
                        hh
                             mm WDIR WSPD GST WVHT DPD APD
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2013
             12 31 23
                             50 255 6.5 10.1 0.66 3.45 3.54
    2: 2014
                    1
                         0
                              50
                                  246
                                       7.4 10.1 0.63 3.23 3.56
                       1
## 3: 2014
              1
                   1
                             50
                                 246 9.7 11.7 0.55 3.13 3.33
             ## 4: 2014
                                                                270
##
    5: 2014
## ---
              12 31 18
12 31 19
12 31 20
## 8749: 2014
                             50 289
                                      6.1
                                            8.6 0.38 2.86 2.87
                                                                288
## 8750: 2014
                             50
                                  303
                                      5.6
                                            8.4 0.48 3.23 3.03
                                                                273
## 8751: 2014
              12
                                  299 5.1 7.8 0.50 3.23 3.04
                             50
                                                                285
## 8752: 2014
              12
                                  298 4.3 6.9 0.46 3.33 3.04
                   31 21
                             50
                                                                286
## 8753: 2014
              12
                   31
                        22
                             50
                                  282
                                      5.7 8.0 0.45 3.23 3.04
                                                                287
        PRES ATMP WTMP DEWP VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1019.2 -2.1 5.8 -9.6
                                   99
## 2: 1019.2 -2.2 5.8 -8.4
##
    3: 1019.8 -1.9 5.9 -7.3
                               99
                                   99
    4: 1019.6 -1.7 5.9 -8.3
##
                               99
                                   99
  5: 1020.2 -2.1 5.9 -9.4
## 8749: 1022.9 -2.1 5.5 999.0
                               99
                                    99
                   5.5 999.0
## 8750: 1023.1 -2.1
                                    99
## 8751: 1023.2 -1.8 5.6 999.0
                               99
                                   99
## 8752: 1023.0 -2.1 5.7 999.0
                               99
                                   99
## 8753: 1023.2 -1.9 5.7 999.0
                               99
                                   99
```

```
## $`2015`
                             mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
               MM DD hh
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2014
              12 31 23
                             50 287
                                       4.9 8.3 0.44 3.23 3.06
## 2: 2015
                          0
                               50
                                   280
                                             7.7 0.39 3.03 2.91
                    1
                                       4.8
    3: 2015
                               50
                                   275
                                        4.1
                                             5.4 0.35 2.86 2.98
                                                                  278
                     1
                          1
                        2
## 4: 2015
               1
                    1
                               50
                                   236
                                       5.3
                                             6, 9 0, 27 2, 86 2, 82
                                                                  277
## 5: 2015
              1 1 3
                              50 220
                                       4.8 6.9 0.20 99.00 2.77
## 8745: 2015
              12 31 18
                              50 298
                                       7.6 8.8 1.23 10.00 5.78
              12 31 19
12 31 20
## 8746: 2015
                              50 310 6.4 8.1 1.23 10.00 5.43
                                                                  100
## 8747:
        2015
                               50
                                   284
                                        7.7
                                             9.8 1.22 10.81 5.55
                                                                   74
                    31 21
               12
## 8748: 2015
                                   280 8.8 10.6 1.25 10.00 5.28
                               50
                                                                   94
## 8749: 2015
              12 31 22
                               50 278 10.2 12.1 1.29 10.00 5.24
                                                                   81
##
         PRES ATMP WTMP DEWP
                              VIS TIDE
        <num> <num> <num> <num> <num> <num> <num> <num>
## 1: 1022.9 -2.3 5.7 999.0 99
                                   99
##
    2: 1022.7 -2.3
                    5.7 999.0
                                     99
## 3: 1022.2 -2.5 5.7 999.0
    4: 1021.9 -2.3 5.6 999.0 99
5: 1021.2 -2.7 5.6 999.0 99
##
                                    99
##
    5: 1021.2 -2.7
                                     99
## 8745: 1013.2 7.2 8.7 3.7
## 8746: 1013.4 6.8 8.7 3.4
                               99
                                     99
                                99
                                     99
## 8747: 1014.1 7.0
                    8.7 2.5
## 8748: 1014.8 6.5 8.6 1.7
                                99
                                     99
## 8749: 1014.7 6.5 8.6 1.1
                                99
                                     99
## $ 2016
                              mm WDIR WSPD GST WVHT DPD APD MWD
## #YY
               MM DD hh
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
    1: 2015
                    31 23
                               50
                                  280
                                       8.8 10.6 1.06 10.00 4.83
## 2: 2016
               - 1
                    1
                          0
                               50
                                   275
                                       9.9 12.0 1.01 10.00 4.60
                                                                   85
## 3: 2016
                               50
                                   266 8.9 10.4 1.09 10.00 4.49
                          1
                   1 2
1 3
##
     4: 2016
                               50
                                   274
                                        9.3 10.7 1.04 10.00 4.42
                                                                   81
                1
              1
## 5: 2016
                             50 279
                                        9.8 11.5 1.08 9.09 4.56
                                                                   87
## ---
                    31 18
31 19
## 8691: 2016
               12
                              50
                                   191
                                        7.5
                                             9.1 0.52 10.81 3.31
              12
## 8692: 2016
                             50 188
                                        7.5 9.5 0.58 10.81 3.30
                                                                  336
              12
## 8693: 2016
                    31 20
                              50 182 7.6 9.3 0.57 11.43 3.41
                                                                  320
## 8694: 2016
               12
                    31
                         21
                               50
                                   174
                                        9. 1 11. 4 0. 71 10. 81 3. 52
                                                                   80
                    31 22
              12
## 8695: 2016
                               50
                                 175
                                       8.8 10.2 0.74 4.00 3.60
##
        PRES ATMP WTMP DEWP
                             VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num>
## 1: 1015.1 6.4 8.6 0.3
##
    2: 1015.2
               6.3 8.5 -0.4
                                99
                                    99
##
    3: 1015.4
               6.0
                    8.5 0.3
                                99
                                    99
## 4: 1015.3 5.7 8.5 -0.3
                                    99
## 5: 1015.3 5.5 8.4 -0.4
                              99
                                    99
##
## 8691: 1017.1 2.0 8.2 999.0
                                     99
## 8692: 1016.8 2.4 8.2 999.0
                                99
                                     99
## 8693: 1016.3
               3.1
                    8, 2, 999, 0
                                99
                                     99
## 8694: 1015.4 3.7 8.1 999.0
                                     99
## 8695: 1015.1 4.2 8.1 999.0
                               99
                                     99
##
## $`2017`
##
        #YY
               MM
                   DD
                         hh
                              mm WDIR WSPD GST WVHT DPD APD
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
## 1: 2016
              12 31 23
                               50 177
                                       9. 1 10. 7 0. 82 10. 81 3. 84
    2: 2017
                     1
                          0
                               50
                                   177
                                        7.3
                                             8.8 0.87 10.81 3.94
                        1
## 3: 2017
                                       7.4 8.7 0.85 4.00 3.95
               1
                    1
                               50 174
              1 1 2 50 186 8.6 10.7 0.85 4.35 3.92 135
1 1 3 50 207 7.9 10.0 0.94 12.12 3.90 126
## 4: 2017
##
    5: 2017
## ---
              12 31 18
12 31 19
## 8692: 2017
                              50 297 12.4 15.0 1.22 4.55 3.81
                                                                  306
## 8693: 2017
                               50
                                   294 12.6 15.7 1.15 4.35 3.81
                                                                  312
                    31 20
               12
## 8694: 2017
                               50
                                   294 11.8 16.8 1.29 4.55 3.89
                                                                  302
               12
## 8695: 2017
                                   293 12.8 17.0 1.36 4.55 3.97
                    31 21
                               50
                                                                  299
## 8696: 2017
               12
                    31
                         22
                               50
                                   298 12.0 15.1 1.26 4.76 3.91
                                                                  301
        PRES ATMP WTMP DEWP
                             VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1014.5 5.3 8.1
                         999
                                    99
## 2: 1013.7
               6.0
                    8.1
##
    3: 1012.7
               7.0 8.2
                         999
                                99
                                     99
##
    4: 1011.8
               7.6
                   8.2
                         999
                                99
                                     99
  5: 1010.8 7.2 8.2 999
## 8692: 1017.4 -9.7
                   6. 5
                         999
                                     99
## 8693: 1018.5 -9.5 6.5
                         999
                                     99
## 8694: 1019.7 -9.3
                    6.5
                         999
                                99
                                     99
## 8695: 1019.7 -9.2 6.5
                         999
                                99
                                     99
## 8696: 1020.3 -9.4 6.5 999
                                99
                                     99
```

```
## $`2018`
                            mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
              MM DD hh
##
       <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
    1: 2017
              12 31 23
                            50 302 13.3 16.7 1.19 4.35 3.76
                         0
                             50
                                 294 11.5 15.0 1.30 4.76 3.97
## 2: 2018
                    1
    3: 2018
                             50
                                 295 12.0 15.3 1.25 4.35 3.84
                                                               304
                    1
                         1
                       2
## 4: 2018
               1
                   1
                             50
                                 305 10.5 14.2 1.18 4.17 3.74
                                                               312
## 5: 2018
                            50 314 11.8 14.2 1.14 3.85 3.65
## 8656: 2018
             12 31 18
                            50 157
                                     4.5 5.1 0.44 13.79 4.54
## 8657: 2018
              12 31 19
                            50 155 5.7 7.0 0.43 14.81 3.84
                                                               78
## 8658:
        2018
                        20
                             50
                                 168
                                           9.5 0.55 13.79 3.63
              12
                   31
                                      8.4
                                                               169
                   31 21
                                 165 8.3 9.7 0.71 3.57 3.70
## 8659: 2018
              12
                             50
                                                               140
## 8660: 2018
             12 31 22
                             50 157 7.9 9.6 0.67 3.85 3.59
                                                               137
        PRES ATMP WTMP DEWP
                             VIS TIDE
##
        ## 1: 1020.6 -10.3 6.5 999.0 99
                                  99
##
    2: 1020.9 -10.3
                   6.5 999.0
                                   99
    3: 1020.8 -11.1 6.5 999.0
    4: 1021.1 -11.8 6.5 999.0 99
##
                                   99
    5: 1021.1 -12.2 6.5 999.0
                              99
                                   99
## 8656: 1026.4 5.7 7.0 0.2
                                   99
                              99
## 8657: 1025.7
              6.0
                   7.0 1.1
                              99
                                   99
## 8658: 1024.8 5.9 7.0 -0.4
## 8659: 1024.6 5.6
                   7.0 -0.2
                              99
                                   99
## 8660: 1024.9 5.3 7.0 -0.5
                              99
                                   99
## $ 2019
                             mm WDIR WSPD GST WVHT DPD APD MWD
        #YY
                  DD hh
##
              MM
##
      <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <num> <int>
               1 1 0
    1: 2019
                             50
                                 158 9.6 11.5 0.81 4.00 3.77
## 2: 2019
               1
                    1
                         1
                             50
                                 136 10.6 12.3 0.99 4.35 3.95
                                                               131
## 3: 2019
                             50 143 11.1 13.3 1.22 4.76 4.18
                         2
                  1 3
1 4
##
    4: 2019
                             50
                                 139 12.3 14.6 1.31 5.00 4.15
                                                               131
              1
## 5: 2019
                                 133 12.3 15.6 1.41 5.00 4.31
                            50
                                                              134
## ---
                   31 18
31 19
## 8609: 2019
              12
                            50
                                 330
                                      6.9
                                           8.4 3.45 10.00 7.47
              12
## 8610: 2019
                            50 329
                                           7.2 3.26 10.00 7.57
                                      5.6
                                                               100
              12
                            50 294 4.0 5.6 3.00 10.81 7.62
## 8611: 2019
                   31 20
                                                               90
                   31 21
31 22
## 8612: 2019
              12
                             50
                                 328
                                      3.8
                                           5. 2 2. 52 10. 00 7. 34
                                                               103
              12
## 8613: 2019
                             50
                                 298 6.3
                                           8.8 2.83 10.00 8.00
##
        PRES ATMP WTMP DEWP
                            VIS TIDE
##
        <num> <num> <num> <num> <num> <num> <num> <num>
## 1: 1023.7 3.6 7.0 1.5
##
    2: 1021.0
                   7.0 1.7
                              99
                                   99
              4.1
##
    3: 1019.3
              4.1
                   7.0 2.6
                              99
                                   99
## 4: 1017.3 4.2 7.0 3.3
                                   99
## 5: 1014.8 5.0 7.0 4.4
                             99
                                   99
##
## 8609: 999.3 3.1 7.1 3.1
                                   99
                   7. 1 3. 2
7. 1 3. 1
## 8610: 999.5 3.2
                              99
                                   99
## 8611: 1000.4
              3. 1
                              99
                                   99
## 8612: 999.6 2.9 7.0 2.7
## 8613: 1000.4 3.2 6.9 2.3
                              99
                                   99
##
## $`2020`
##
         #YY
              MM
                   DD
                        hh
                              mm WDIR WSPD GST WVHT DPD APD
##
       <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
              12
##
    1: 2019
                   31 23
                              50
                                  295 5.4 7.0 2.48 10.00 7.51
     2: 2020
                1
                    1
                          0
                              50
                                  276
                                       5.3
                                            6.9 2.46 10.00 7.61
                   1
                       1
    3: 2020
                                  257 7.1 9.3 2.09 10.00 7.03
##
                              50
                1
   4: 2020
              1 1 2 50
1 1 3 50
##
                                  247 7.7 10.0 2.17 10.81 6.89
                                                                77
##
     5: 2020
                                           10.0 2.32 10.00 7.45
                                  242
                                       7.8
##
               12 31 23 10
12 31 23 20
## 16099: 2020
                                  300 8.0 9.8 99.00 99.00 99.00
                                                                999
## 16100:
        2020
                                  300
                                       6.9
                                            8.5 99.00 99.00 99.00
                                                                999
                  31
                        23
## 16101: 2020
                                  301 7.1 9.2 99.00 99.00 99.00
               12
                              30
## 16102: 2020
               12 31 23
                              40
                                  300 7.7 10.0 0.63 3.33 3.30
                                                               304
## 16103: 2020
               12
                    31
                         23
                              50
                                  300
                                       8.1 10.0 99.00 99.00 99.00
                                                                999
         PRES ATMP WTMP DEWP
                              VIS TIDE
##
        ##
     1: 1000.3 3.0 6.9 2.7
                              99
    2: 1000.4
               3.4
                    6.9 2.6
##
     3: 1000.5 3.6 6.9 2.7
                               99
                                    99
     4: 999.9 3.9 6.8 2.9
##
                               99
                                    99
    5: 999.6 4.3 6.8 2.9
## 16099: 1022.9 5.3 7.3 -2.9
                               99
                                    99
## 16100: 1023.1 5.4 7.3 -2.3
## 16101: 1023.1
               5.3 7.3 -2.5
                               99
                                    99
## 16102: 1023.4 5.2 7.3 -2.6
                              99
                                    99
## 16103: 1023.8 5.2 7.3 -2.7
                              99
```

```
## $ 2021
                    DD hh
                               mm WDIR WSPD GST WVHT DPD APD
##
        <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
     1: 2021
               1
                    1 0 0
                                    302 7.9 9.8 99.00 99.00 99.00
                                                                    999
##
     2: 2021
                                         7.8 10.1 99.00 99.00 99.00
                            0
                                10
                                    301
##
     3:
         2021
                            0
                                20
                                    301
                                         8.1 10.1 99.00 99.00 99.00
                                                                    999
                      1
                 1
                    1
                                    305 7.3 9.0 99.00 99.00 99.00
##
     4: 2021
                 1
                           0
                                30
                                                                    999
##
    5: 2021
               1 1 0
                               40
                                    302 7.2 9.4 0.57 3.45 3.22
## 51559: 2021
               12 31 23 10
                                    160 1.8 2.4 99.00 99.00 99.00
                                                                    999
                                                                    999
## 51560: 2021
              12 31 23 20
                                    174 2.0 2.5 99.00 99.00 99.00
         2021
                          23
                                30
                                     201
                                               3.0 99.00 99.00 99.00
## 51561:
                12
                     31
                                         2.4
                                                                    999
                     31 23
                                    204 2.4 2.9 0.43 10.00 5.98
## 51562: 2021
                12
                                40
                                                                    111
                                    221 2.4 3.3 99.00 99.00 99.00
## 51563: 2021
               12
                    31 23
                                50
                                                                    999
          PRES ATMP WTMP DEWP
                               VIS
                                    TIDE
##
         <num> <num> <num> <num> <num> <num> <num> <num>
##
    1: 1024.1 5.2 7.4 -3.0 99
                                      99
##
     2: 1024.2
                5.1
                     7.4 -3.0
                                 99
     3: 1024.4 5.1 7.4 -2.8
                                99
     4: 1024.6 5.1 7.3 -2.8
##
                                 99
                                      99
##
     5: 1024.7 5.0 7.3 -2.9
                                 99
                                      99
## 51559: 1015.0 999.0 8.5 999.0
                                      99
                                 99
## 51560: 1015.0 999.0
                     8.5 999.0
                                 99
                                      99
## 51561: 1015.5 999.0 8.5 999.0
## 51562: 1015.6 999.0 8.5 999.0
                                 99
                                      99
## 51563: 1015.8 999.0 8.5 999.0
                                 99
                                      99
## $ 2022
                                mm WDIR WSPD GST WVHT DPD APD
         #YY
##
                MM
                    DD hh
##
        <int> <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
     1: 2022
                1
                    1
                           0 0
                                    239
                                         2.5
                                              3.2 99.00 99.00 99.00
##
     2: 2022
                 1
                      - 1
                           0
                                10
                                    235
                                         1. 9
                                               2. 8 99. 00 99. 00 99. 00
                                                                    999
##
    3: 2022
                                    207
                                        1.6 2.4 99.00 99.00 99.00
                            0
                                20
##
     4:
         2022
               \begin{array}{cccc} 1 & 1 & 0 \\ 1 & 1 & 0 \end{array}
                                30
                                    183
                                         1.3
                                               1.7 99.00 99.00 99.00
                              40
##
    5: 2022
                                    176
                                         1.5
                                              2.1 0.40 9.09 6.19
                                                                    137
##
                    31 23
## 52525: 2022
                               10
                                    999
                                         4.1
                                               4.9 99.00 99.00 99.00
                12 31 23 20
## 52526: 2022
                                               4.5 99.00 99.00 99.00
                                    999 3.9
## 52527: 2022
               12 31 23 30
                                    999 4.1 4.5 99.00 99.00 99.00
                                                                    999
## 52528:
         2022
                12
                     31
                           23
                                40
                                    999
                                         4.1
                                               4.5 0.43 10.00 3.36
                                                                     71
               12 31 23
## 52529: 2022
                                    999 4.0 5.1 0.41 10.00 3.33
                                50
##
         PRES ATMP WTMP DEWP VIS TIDE
##
         <num> <num> <num> <num> <num> <num>
                999 8.5 999
    1: 1015.7
##
                999
                     8. 5
                          999
                                 99
                                      99
     2: 1015.7
##
     3: 1015.7
                999
                     8.5
                          999
                                 99
                                      99
                999 8.5 999
    4: 1015.5
##
     5: 1015, 5 999 8, 5 999
                                99
                                     99
##
## 52525: 1011.5
                999 7.6
                           999
## 52526: 1011.4
                999
                     7.6
                          999
                                 99
                                      99
## 52527: 1011.1
                999
                     7.6
                           999
                                 99
                                      99
## 52528: 1011.1
                999
                    7.6
                           999
## 52529: 1011.0 999
                     7.6
                           999
                                 99
##
## $ 2023
##
          #YY
                MM
                     DD
                          hh
                                mm WDIR WSPD GST WVHT DPD APD
##
        <int> <int> <int> <int> <int> <int> <num> <num> <num> <num> <num> <int>
##
     1: 2023
               1
                    1
                           0
                                0
                                    999 4.3 5.0 99.00 99.00 99.00
     2: 2023
                 1
                      1
                            0
                                10
                                    999
                                         4.5
                                               5.4 99.00 99.00 99.00
                    1 0
##
     3: 2023
                                20
                                    999 4.2
                                              4.8 99.00 99.00 99.00
                 1
##
     4: 2023
               1 1 0 30 999 4.2 4.8 99.00 99.00 99.00
                                                                    999
     5: 2023
                                    999
##
                 1
                    1 0
                               40
                                         3.9
                                               4.3 0.41 9.09 3.43
##
                12 31 23 10
12 31 23 20
## 52476: 2023
                                    340 4.9
                                              6. 2 0. 43 10. 81 4. 96
                                                                    76
## 52477:
         2023
                                    332
                                         5.0
                                               6.0 99.00 99.00 99.00
                                                                    999
                    31 23
## 52478: 2023
                                              6.4 99.00 99.00 99.00
                12
                                30
                                    331
                                         5, 2
                                                                    999
## 52479: 2023
                12 31 23
                                40
                                    337
                                         5. 2 6. 9 0. 50 10. 00 3. 73
                                                                    99
## 52480: 2023
                12
                     31
                          23
                                50
                                    335
                                         5.1
                                               6.7 99.00 99.00 99.00
                                                                    999
         PRES ATMP WTMP DEWP VIS TIDE
##
         <num> <num> <num> <num> <num> <num> <num>
     1: 1010.8 999.0 7.6 999.0
##
                                99
    2: 1010.6 999.0 7.6 999.0
##
     3: 1010, 2 999, 0 999, 0 999, 0
                                 99
                                      99
##
     4: 1010.0 999.0 7.6 999.0
                                 99
                                      99
    5: 1009.8 999.0 7.6 999.0
## 52476: 1014.2 3.6 7.3 -2.5
                                 99
                                      99
## 52477: 1014.3 3.3 7.3 -3.0
                                      99
## 52478: 1014.4 3.2 7.3 -3.1
                                 99
## 52479: 1014.4 3.1 7.3 -3.0
                                 99
                                      99
## 52480: 1014.6 3.0 7.2 -3.2
                                 99
```

 $When null data has a specific interpretation in a dataset, it can be adjusted according to the context, rather than being directly converted to NA. \\ \verb|####c Use the Buoy data to see the effects of climate change:$

```
library(tidyverse)
## -- Attaching core tidyverse packages -
                                                                                    ---- tidyverse 2.0.0 --
## d dplyr 1.1.4 d readr 2.1.5
## / forcats 1.0.0

√ stringr 1.5.1

## / ggplot2 3.5.1
                         √ tibble 3.2.1
                       ✓ tidyr
## ✓ lubridate 1.9.3
                                      1.3.1
## √ purrr 1.0.2
## -- Conflicts -
                                                                                                   ---- tidvverse conflicts() -
\texttt{## X dplyr::between()} \qquad \qquad \texttt{masks data.table::between()}
## X dplyr::filter() masks stats::filter()
## X dplyr::first() masks data.table::first()
## X lubridate::hour() masks data.table::hour()
## X lubridate::isoweek() masks data.table::isoweek()
## X dplyr::lag() masks stats::lag()
                          masks data.table::last()
## X dplyr::last()
## X lubridate::mday()
                          masks data.table::mday()
## X lubridate::minute() masks data.table::minute()
## X lubridate::month() masks data.table::month()
## X lubridate::quarter() masks data.table::quarter()
## X lubridate::second() masks data.table::second()
## X purrr::transpose() masks data.table::transpose()
## X lubridate::wday()
## X lubridate::week()
## masks data.table::week()
## X lubridate::yday() masks data.table::yday()
## X lubridate::year() masks data.table::year()
## i Use the conflicted package (<a href="http://conflicted.r-lib.org/">http://conflicted.r-lib.org/</a>) to force all conflicts to become errors
library (data.table)
combined_data <- rbindlist(all_data, fill = TRUE, idcol = "year")</pre>
annual avg <- combined data %>%
  group_by(year) %>%
  summarize(
    avg_WTMP = mean(as.numeric(WTMP), na.rm = TRUE),
    avg_ATMP = mean(as.numeric(ATMP), na.rm = TRUE)
ggplot(annual\_avg, aes(x = as.numeric(year))) +
  geom_line(aes(y = avg_WTMP, color = "Sea surface Temperature")) +
  geom_line(aes(y = avg_ATMP, color = "Air Temperature")) +
  geom_smooth(aes(y = avg_WTMP), method = "lm", se = FALSE, linetype = "dashed", color = "blue") +
  geom_smooth(aes(y = avg_ATMP), method = "lm", se = FALSE, linetype = "dashed", color = "red") +
  labs(title = "Annual Average Temperatures (1985-2023)",
      x = "Year", y = "Temperature (° C)",
       color = "Temperature Type")
## geom_smooth() using formula = 'y x'
\#\# Warning: Removed 1 row containing non-finite outside the scale range
## (`stat_smooth()`).
## geom_smooth() using formula = 'y x'
## Warning: Removed 1 row containing non-finite outside the scale range
## (`stat_smooth()`).
```

Annual Average Temperatures (1985-2023) 750 Temperature Type Air Temperature Sea surface Temperature Sea surface Temperature

Year

```
wtmp_lm <- lm(avg_WTMP ~ year, data = annual_avg)
summary(wtmp_lm)</pre>
```

```
##
## Call:
## 1m(formula = avg_WTMP \sim year, data = annual_avg)
##
## ALL 38 residuals are 0: no residual degrees of freedom!
##
## Coefficients:
                Estimate Std. Error t value Pr(>|t|)
## (Intercept) 11.37766
                                NaN
                                        NaN
                                                 NaN
## year1986
                -0.24906
                                NaN
                                        NaN
                                                 NaN
## year1987
                -1.11754
## year1988
                -0.82894
                                        NaN
                                                 NaN
                                NaN
## vear1989
                2. 30253
                                NaN
                                        NaN
                                                 NaN
## year1990
                -0.17588
                                NaN
## year1991
                -0.51773
                                NaN
                                        NaN
                                                 NaN
               -0.88803
## year1992
                                NaN
                                        NaN
                                                 NaN
## year1993
                0.28836
                                NaN
                                        NaN
                                                 NaN
## year1994
               257.94989
                                NaN
                                        NaN
                                                 NaN
               860, 77479
## vear1995
                                NaN
                                        NaN
                                                 NaN
## year1996
               27.73944
                                NaN
                                        NaN
                                                 NaN
## year1997
               219.22094
                                NaN
                                        NaN
                                                  NaN
               17.96955
## year1998
                                NaN
                                        NaN
                                                 NaN
## year1999
                 9.68403
                                NaN
                                        NaN
                                                 NaN
## year2001
                 6.11812
                                NaN
## year2002
                 4.29303
                                        NaN
                                NaN
                                                 NaN
## year2003
                3.70302
                                NaN
                                        NaN
                                                 NaN
## year2004
                -1.07193
                                NaN
                                        NaN
                                                  NaN
## year2005
                1.87851
                                NaN
                                        NaN
                                                  NaN
## year2006
                2.79508
                                NaN
                                        NaN
                                                 NaN
## year2007
                 3.62583
                                NaN
                                        NaN
                                                  NaN
## year2008
                 4.55962
                                NaN
                                        NaN
                                                 NaN
## year2009
                -0.32174
                                NaN
                                        NaN
                                                 NaN
## year2010
                0.07863
                                NaN
                                        NaN
                                                 NaN
## year2011
                20.22650
                                NaN
                                        NaN
                                                  NaN
## year2012
                 6.11483
                                        NaN
                                NaN
                                                 NaN
## year2013
                 1.42016
                                NaN
                                        NaN
                                                 NaN
## year2014
                -0.53790
                                NaN
                                        NaN
                                                  NaN
## year2015
                -0.07921
                                NaN
                                        NaN
                                                 NaN
## year2016
                 0.68684
                                NaN
                                        NaN
                                                 NaN
## year2017
                 0.28844
                                NaN
                                        NaN
                                                  NaN
## year2018
                 0.41122
                                NaN
                                        NaN
                                                 NaN
## vear2019
                 0.15203
                                        NaN
                                NaN
                                                 NaN
## year2020
                 2.37780
                                NaN
                                        NaN
                                                 NaN
## year2021
                 6.17047
                                NaN
                                        NaN
                                                  NaN
## year2022
                 6,53298
                                NaN
                                        NaN
                                                 NaN
## year2023
                 5.52595
                                NaN
                                        NaN
## Residual standard error: NaN on O degrees of freedom
    (因为不存在,1个观察量被删除了)
## Multiple R-squared:
                           1, Adjusted R-squared:
## F-statistic: NaN on 37 and 0 DF, p-value: NA
```

```
atmp_1m <- 1m(avg_ATMP ~ year, data = annual_avg) summary(atmp_1m)
```

```
## Call:
## 1m(formula = avg_ATMP ^{\sim} year, data = annual_avg)
## Residuals:
## ALL 38 residuals are 0: no residual degrees of freedom!
##
## Coefficients:
              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 9.71433 NaN
                                  NaN
                                             NaN
## year1986
               0.40256
                             NaN
                                     NaN
                                             NaN
               0.37544
## year1987
                             NaN
                                     NaN
                                             NaN
## vear1988
               1, 23765
                             NaN
                                    NaN
                                             NaN
## year1989
              9.30816
                            NaN
                                   NaN
                                             NaN
## year1990
               1.58459
                             NaN
                                    NaN
                                             NaN
## vear1991
               1.47263
                             NaN
                                    NaN
                                             NaN
## year1992
              -0.41623
                             NaN
                                    NaN
                                             NaN
## year1993
              0.86275
                             NaN
                                     NaN
                                             NaN
## year1994
              -0.06932
                             NaN
                                    NaN
                                             NaN
## year1995
              -0.35068
                                    NaN
                             NaN
                                             NaN
## year1996
              28.67591
                             NaN
                                     NaN
                                             NaN
## year1997
              28.75553
                             NaN
                                    NaN
                                             NaN
## year1998
              19.88882
                             NaN
                                    NaN
                                             NaN
## year1999
              10.84183
                             NaN
                                     NaN
                                             NaN
## year2001
              7.05878
                             NaN
                                     NaN
## vear2002
               4.91193
                                    NaN
                             NaN
                                             NaN
## year2003
               3.14920
                             NaN
                                    NaN
                                             NaN
## year2004
              -0.68948
                             NaN
                                     NaN
## year2005
               2.21969
                             NaN
                                     NaN
                                             NaN
## vear2006
               4.25559
                             NaN
                                    NaN
                                             NaN
## year2007
              3.95737
                             NaN
                                     NaN
## year2008
               4.41365
                             NaN
                                     NaN
                                             NaN
## year2009
              -0.21674
                             NaN
                                    NaN
                                             NaN
## year2010
              0.62891
                             NaN
                                    NaN
                                             NaN
## year2011
               0.85204
                             NaN
                                     NaN
                                             NaN
## vear2012
               4.76066
                             NaN
                                     NaN
                                             NaN
## year2013
               0.47768
                             NaN
                                    NaN
                                             NaN
## year2014
               0.04508
                             NaN
                                     NaN
## vear2015
               0.53125
                                    NaN
                             NaN
                                             NaN
## year2016
               1.02043
                             NaN
                                    NaN
                                             NaN
## year2017
               0.61345
                             NaN
                                     NaN
                                             NaN
## year2018
              0.57506
                             NaN
                                    NaN
                                             NaN
              0.27538
## year2019
                             NaN
                                    NaN
                                             NaN
## year2020
              -0.20631
                             NaN
                                     NaN
                                             NaN
## year2021 524.13279
                             NaN
                                    NaN
                                             NaN
## year2022 989.28567
                             NaN
                                    NaN
                                             NaN
## year2023
             411.30998
                             NaN
                                     NaN
                                             NaN
\mbox{\tt \#\#} Residual standard error: NaN on 0 degrees of freedom
## (因为不存在,1个观察量被删除了)
## Multiple R-squared:
                         1, Adjusted R-squared:
## F-statistic: NaN on 37 and 0 DF, p-value: NA
```

###d

```
## # A tibble: 30 × 2
## Year total_rainfall
             <db1>
##
    <db1>
## 1 1985
                  36.6
## 2 1986
                  44.3
## 3 1987
## 4 1988
                  34.8
## 5 1989
                  42.4
## 6 1990
                  46.5
## 7 1991
                  42.2
## 8 1992
                  43.7
## 9 1993
                  43.2
## 10 1994
                  47.6
## # i 20 more rows
```

```
summary(annual rainfall)
```

```
## Year total_rainfall
## Min. :1985 Min. : 0.50
## 1st Qu.:1992 1st Qu.:37.26
## Median :1999 Median :42.37
## Mean :1999 Mean :40.96
## 3rd Qu.:2006 3rd Qu.:46.18
## Max. :2013 Max. :53.20
## NA's :1
```

summary(buoy_data)

```
## #YY MM DD hh mm

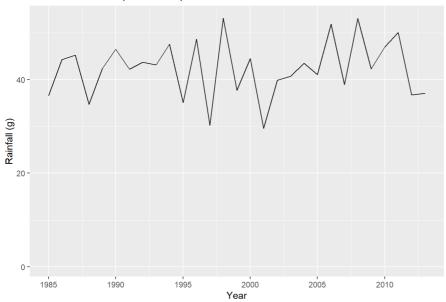
## Min :2023 Min : 1.000 Min : 1.00 Min : 0.0 Min : 0

## 1st Qu : 2023 1st Qu : 4.000 1st Qu : 8.00 1st Qu : 6.0 1st Qu : 10
                Median: 7.000 Median: 16.00 Median: 11.0 Median: 20
## Median :2023
## Mean :2023
                Mean : 6.528 Mean :15.71
                                             Mean :11.5 Mean :25
## 3rd Qu.:2023
                3rd Qu.:10.000 3rd Qu.:23.00
                                             3rd Qu.:18.0
                                                          3rd Qu.:40
## Max. :2023
                Max. :12.000 Max. :31.00 Max. :23.0 Max. :50
                 WSPD
                                GST
    WDIR
                                              WVHT
## Min. : 1.0 Min. : 0.00 Min. : 0.00 Min. : 0.16
## 1st Qu.:171.0 1st Qu.: 3.80 1st Qu.: 4.80 1st Qu.: 1.18
## Median :302.0
                 Median : 7.00
                               Median : 8.70
                                             Median :99.00
## Mean :524.6 Mean :37.06 Mean :37.96 Mean :66.98
## 3rd Qu.:99.00 3rd Qu.:99.00 3rd Qu.:99.00 3rd Qu.:99.00
## Max. :999.0 Max. :99.00
                              Max. :99.00
                                             Max. :99.00
                 APD
                               MWD
## DPD
                                             PRES
\hbox{\tt \#\# Min.} \qquad : \ 2.15 \qquad \hbox{\tt Min.} \qquad : \ 2.54 \qquad \hbox{\tt Min.} \qquad : \ 0.0 \qquad \hbox{\tt Min.} \qquad : \ 979.2
  1st Qu.:10.00
                 1st Qu.: 5.53
                               1st Qu.:122.0
                                             1st Qu.:1010.3
## Median :99.00 Median :99.00 Median :999.0 Median :1015.7
## Mean :69.43 Mean :68.19 Mean :713.8 Mean :1508.4
## 3rd Qu.:99.00
                 3rd Qu.:99.00
                               3rd Qu.:999.0
                                             3rd Qu.:1022.0
## Max. :99.00 Max. :99.00 Max. :999.0 Max. :999.0
    ATMP
                 WTMP
                                DEWP
                                              VIS
##
                                                            TIDE
## Min. : -4.3 Min. : 4.4 Min. :-12.9 Min. :99
                                                        Min. :99
## 1st Qu.: 15.3 1st Qu.: 6.7 1st Qu.: 12.2 1st Qu.:99 1st Qu.:99
## Median : 20.4 Median : 12.0 Median : 19.3 Median :99
                                                        Median:99
## Mean :421.0 Mean : 16.9 Mean :419.3 Mean :99
                                                         Mean :99
## 3rd Qu.:999.0 3rd Qu.: 17.3 3rd Qu.:999.0 3rd Qu.:99
                                                        3rd Qu.:99
## Max. :999.0 Max. :999.0 Max. :99 Max. :99
```

```
ggplot(annual_rainfall, aes(x = Year, y = total_rainfall)) +
geom_line() +
labs(title = "Rainfall in Boston (1985-2013)", x = "Year", y = "Rainfall (g)")
```

```
## Warning: Removed 1 row containing missing values or values outside the scale range
## (`geom_line()`).
```

Rainfall in Boston (1985-2013)



```
buoy_data %>%
summarise(WTMP_avg = mean(WTMP, na.rm = TRUE),
ATMP_avg = mean(ATMP, na.rm = TRUE))
```

```
## WTMP_avg ATMP_avg
## 1 16.90361 421.0243
```