Package 'pmetar'

October 25, 2023

Type Package

Title Processing METAR Weather Reports

Version 0.5.0

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Description Allows to download current and historical METAR weather reports
extract and parse basic parameters and present main weather information.
Current reports are downloaded from Aviation Weather Center
<https://aviationweather.gov/data/metar/> and historical reports from
Iowa Environmental Mesonet web page of Iowa State University
ASOS-AWOS-METAR <http://mesonet.agron.iastate.edu/AWOS/>.

License GPL (>= 3)

URL https://github.com/prcwiek/pmetar

BugReports https://github.com/prcwiek/pmetar/issues

Depends R (>= 3.5.0), utils, stats

Imports curl, dplyr, httr, lubridate, magrittr, RCurl, tidyr, stringr

Suggests knitr, rmarkdown, testthat, tibble

VignetteBuilder knitr

LazyData true

Encoding UTF-8

RoxygenNote 7.2.3

NeedsCompilation no

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David Megginson [ctb] (Author of data set with airports list
https://ourairports.com/data/),
Greg Thompson [ctb] (Author of data set with airports list
https://weather.ral.ucar.edu/surface/stations.txt)

Repository CRAN

Date/Publication 2023-10-25 21:50:03 UTC

R **topics documented:**

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metarWXcodes   *METAR WX weather conditions codes*

Description

A dataset containing the explanations for METAR WX weather conditions codes. The variables are as follows:

Format

A data frame with 39 rows and 3 variables

Details

- Type; type of the codes
- Abbreviation; the codes which are included in METAR reports
- Meaning; description of the codes

References

https://en.wikipedia.org/wiki/METAR#METAR_WX_codes

---

metar_airport	*Get airport ICAO, International Civil Aviation Organization, code.*

Description

Extract an airport ICAO code from METAR weather report.

Usage

```
metar_airport(x)
```

Arguments

x   character vector; METAR weather report or reports.

Value

a character vector with an airport ICAO code.

Examples

```
metar_airport("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_airport("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180")
metar_airport("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
metar_airport("202103251800 METAR COR NFTL 251800Z 00000KT SCT017TCU BKN290 25/25 Q1014")
```

---

metar_cloud_coverage	*Get cloud coverage information.*

Description

Extract and parse cloud coverage information from METAR weather report.

Usage

```
metar_cloud_coverage(x, sep = ";")
```

Arguments

x	character vector; a METAR weather report or reports.
sep	character; comma or semicolon, used for separating decoded elements of weather conditions information.

Value

a character vector with cloud coverage information.

Examples

```
metar_cloud_coverage("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_cloud_coverage("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180")
metar_cloud_coverage("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
metar_cloud_coverage("202103251800 METAR COR NFTL 251800Z 00000KT SCT017TCU BKN290 25/25 Q1014")
metar_cloud_coverage("KEWR 011451Z 26015KT 10SM FEW030 FEW045 BKN065 04/M07 A2977", sep = ",")
```

---

metar_day   *Get day of month.*

Description

Extract a day of a month from METAR weather report.

Usage

```
metar_day(x)
```

Arguments

x   character vector; a METAR weather report or reports.

Value

a numeric vector with a day of a month.

Examples

```
metar_day("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_day("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180")
metar_day("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
```

---

metar_decode	*Decode METAR report.*

Description

Extract and parse information from a single METAR weather report or several reports.

Usage

```
metar_decode(
  x,
  metric = TRUE,
  altimeter = FALSE,
  numeric_only = FALSE,
  check = TRUE,
  sep = ";"
)
```

Arguments

x	character vector; a single METAR weather report or historical METAR weather reports.
metric	logical; if TRUE wind speeds returned in m/s, distances in meters. If FALSE, wind speeds returned in knots and distances in miles.
altimeter	logical; if FLASE pressures returned in hPa, if TRUE in mmHg.
numeric_only	logical; if TRUE only numeric values are returned.
check	logical; if TRUE the syntax of METAR reports will be checked and incorrect reports will be omitted. If FALSE, the incorrect syntax of reports can cause errors and breakdown of decoding. The default value is TRUE.
sep	character; comma or semicolon, used for separating decoded elements of weather conditions information. The default value is ";".

Details

Decoded METAR weather report consists of:

- Remark: Don't use for flight planning or navigation! or Incorrect METAR report! Please check the column Original_METAR.
- Airport ICAO
- Day of Month
- Hour (HH:mm)
- Time zone
- Wind speed

- Wind speed unit (m/s or kn)

- Gust

- Gust unit (m/s or kn)

- Wind shear

- Wind direction (degrees)

- Temperature (Celsius degrees)

- Dew point (Celsius degrees)

- Pressure (hPa)

- Pressure unit (hPa or mmHg)

- Visibility

- Visibility unit (m or miles)

- Cloud coverage

- Weather conditions information from WX codes

- Runway visibility (m or feet)

- Airport Name

- Longitude

- Latitude

- Elevation

- Decode Date

- Original METAR text

Value

a tibble with decoded METAR weather report or reports.

Examples

```
metar_decode("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_decode("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180",
altimeter = TRUE, metric = FALSE)
metar_decode("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
metar_decode("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005", altimeter = TRUE)
metar_decode("CYWG 172000Z 30015G25KT 3/4SM R36/4000FT/D -SN M05/M08 A2992")
metar_decode("202103251800 METAR COR NFTL 251800Z 00000KT SCT017TCU BKN290 25/25 Q1014")
```

---

metar_dew_point   *Get dew point temperature.*

Description

Extracts a dew point temperature value from a METAR weather report or reports.

Usage

```
metar_dew_point(x, check = FALSE)
```

Arguments

x	character vector; a METAR weather report or reports.
check	logical; if TRUE the syntax of METAR reports will be checked.

Value

a numeric vector with a dew point temperature in Celsius degrees.

Examples

```
metar_dew_point("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_dew_point("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180")
metar_dew_point("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
metar_dew_point("METAR KEWR 010851Z 27010KT 10SM FEW030 BKN070 BKN100 BKN210 04/M03 A2969")
metar_dew_point("201905121244 METAR KDCA 121244Z 05010KT 14/12 A2978 RMK P0002 T01390122")
```

---

metar_dir   *Get wind direction.*

Description

Extract a wind direction value from METAR weather report.

Usage

```
metar_dir(x, numeric_only = FALSE, check = FALSE)
```

Arguments

x	character vector; a METAR weather report or reports.
numeric_only	logical; the default value is FALSE and information about variability will be included. If TRUE only a numeric value of direction will be returned.
check	logical; if TRUE the syntax of METAR reports will be checked.

Value

a numeric vector with a wind direction in degrees.

Examples

```
metar_dir("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_dir("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180",
numeric_only = TRUE)
metar_dir("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
```

---

metar_get   *Get a current METAR report for an airport.*

Description

A current METAR weather report is downloaded from the web page of NOAA National Weather Service https://aviationweather.gov/data/metar/ based on an airport four letters ICAO code, International Civil Aviation Organization, or three letters IATA code, International Air Transport Association.

Usage

```
metar_get(airport = "EPWA")
```

Arguments

airport   character; ICAO or an IATA airport code.

Value

a character vector with a current METAR weather report.

Examples

```
metar_get("EPWA")
metar_get("CYUL")
metar_get("MAD")
metar_get("WAW")
```

---

metar_get_historical   *Get historical METAR reports.*

Description

Download a set of historical METAR weather reports. The default source is the Iowa Environmental Mesonet web page of Iowa State University ASOS-AWOS-METAR
https://mesonet.agron.iastate.edu/AWOS/
The secondary source of METAR reports is Weather Information Service provided by Ogimet
https://www.ogimet.com/. However for this source the requested period is limited to 31 days. METAR reports are available from the year 2005.

Usage

```
metar_get_historical(
  airport = "EPWA",
  start_date = "2020-01-01",
  end_date = "2020-01-10",
  from = "iastate"
)
```

Arguments

airport	character; ICAO or IATA airport code.
start_date	character; start date in the format YYYY-MM-DD.
end_date	character; end date in the format YYYY-MM-DD.
from	character; selection of online METAR database, the default value is "iastate" downoloading METAR reports from Iowa Environmental Mesonet ASOS-AWOS-METAR https://mesonet.agron.iastate.edu/AWOS/. Setting the parameter from to "ogimet" allows to use Weather Information Service provided by Ogimet https://www.ogimet.com/.

Value

a data frame character vectors with historical METAR weather report.

Examples

```
metar_get_historical("EPWA", start_date = "2017-11-20", end_date = "2017-11-25")
metar_get_historical("MAD", start_date = "2015-06-01", end_date = "2015-06-02",
from = "iastate")
metar_get_historical("CYUL", start_date = "2016-07-01", end_date = "2016-07-05",
from = "ogimet")
```

---

metar_gust   *Get gust speed.*

Description

Extract a gust speed from METAR weather report.

Usage

```
metar_gust(x, metric = TRUE)
```

Arguments

x	Input character vector; a METAR weather report or reports.
metric	For the default metric = TRUE a returned gust wind speed is in m/s. If it's FALSE, in knots.

Value

a numeric vector with a gust speed in m/s or in knots.

Examples

```
metar_gust("METAR EPWA 141200Z 30011G22KT 270V340 9999 -SHRA SCT007 BKN015CB 18/17 Q1011")
metar_gust("CYUL 101900Z 27015G25KT 15SM DRSN SCT028 BKN090 OVC110 M04/M10 A2973 RMK")
metar_gust("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
```

---

metar_hour   *Get hour and minutes.*

Description

Extract and parse hour and minutes from METAR weather report.

Usage

```
metar_hour(x)
```

Arguments

x	character; a METAR weather report or reports.

Value

a character vector with the METAR time in the format HH:mm.

Examples

```
metar_hour("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_hour("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180")
metar_hour("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
```

---

metar_iata_icao   *Convert between IATA (International Air Transport Association) air-port code to ICAO (International Civil Aviation Organization) airport code or vice versa.*

Description

Convert between IATA (International Air Transport Association) airport code to ICAO (International Civil Aviation Organization) airport code or vice versa.

Usage

```
metar_iata_icao(code = "WAW")
```

Arguments

code   character vector; an airport ICAO four letters code or an IATA three letters code.

Value

a character vector with an IATA code an ICAO input code or an ICAO code an IATA input code.

Examples

```
metar_iata_icao("EPWA")
metar_iata_icao("CYUL")
metar_iata_icao("LEMD")
metar_iata_icao("WAW")
metar_iata_icao("FRA")
metar_iata_icao("KRK")
```

---

metar_is_correct   *Check if METAR report is correct.*

Description

Function checks METRAR reports syntax.

Usage

```
metar_is_correct(x, verbose = FALSE)
```

Arguments

x   character vector; METAR weather report or reports.

verbose   logical; default FALSE

Details

It checks:
appearance of not allowed characters: ! \ ? . , ; : * # & ' ") and multiple slash characters
wind speed syntax
wind direction syntax
pressure syntax
air and dew point temperature syntax
if an airport code is the first element or appear immediately after METAR, SPECI, METAR COR
ro SPECI COR.

Value

if verbose = FALSE, TRUE if a METAR is correct, FALSE if not.

if verbose = TRUE, all incorrect METAR reports will be printed

Examples

```
metar_is_correct("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_is_correct("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5! SLP180")
metar_is_correct("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04//M03 Q1025")
```

---

metar_location   *Get approximated airport location.*

Description

Find approximated latitude, longitude and elevation of an airport according to IATA, International Air Transport Association, or ICAO, International Civil Aviation Organization, airport code. Two source of information about airports are used. First the function search in the list of airports available at https://ourairports.com/data/ created by David Megginson. If an airport cannot be found there, the second list of airports is searched, from https://weather.ral.ucar.edu/surface/stations.txt prepared by Greg Thompson from
National Weather Service NCAR/RAP.

Usage

```
metar_location(x = "EPWA")
```

Arguments

x   character vector; an airport ICAO four letters code or an IATA three letters code.

Value

a tibble with columns with an airport information as below:

- ICAO code
- IATA Code
- Airport name
- Longitude, in degress
- Latitude, in degress
- Elevation, above see elevel in meters
- Source of information

Examples

```
metar_location("EPWA")
metar_location("CYUL")
metar_location("LEMD")
metar_location("NCRK")
metar_location("WAW")
metar_location("FRA")
```

---

metar_pressure *Get atmospheric pressure.*

Description

Extract and parse an air pressure value from METAR weather report.

Usage

```
metar_pressure(x, altimeter = FALSE, check = FALSE)
```

Arguments

x	character vector; a METAR weather report or reports.
altimeter	boolean; if FALSE, the default value, a pressure is returned in hPa, if TRUE a pressure is returned in inHg (inch of mercury).
check	logical; if TRUE the syntax of METAR reports will be checked.

Value

a numeric vector with air pressure in inHg or hPa.

Examples

```
metar_pressure("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_pressure("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005", altimeter = TRUE)
metar_pressure("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025 NOSIG= NOSIG=")
```

---

metar_print *Decode and print METAR report*

Description

Extract, parse and print information from a single METAR weather report.

Usage

```
metar_print(
  x,
  metric = TRUE,
  altimeter = FALSE,
  numeric_only = FALSE,
  check = TRUE,
  sep = ";"
)
```

Arguments

x	character vector; a single METAR weather report.
metric	logical; if TRUE wind speeds returned in m/s, distances in meters. If FALSE, wind speeds returned in knots and distances in miles.
altimeter	logical; if FLASE pressures returned in hPa, if TRUE in mmHg.
numeric_only	logical; if TRUE only numeric values are returned.
check	logical; if TRUE the syntax of METAR reports will be checked and incorrect reports will be omitted. If FALSE, the incorrect syntax of reports can cause errors and breakdown of decoding. The default value is TRUE.
sep	character; comma or semicolon, used for separating decoded elements of weather conditions information. The default value is ";".

Details

Function prints below decoded METAR weather report elements:

- Remark: Don't use for flight planning or navigation! or Incorrect METAR report! Please check the column Original_METAR.
- Airport ICAO
- Day of Month
- Hour (HH:mm)
- Time zone
- Wind speed (m/s or kn)
- Gust (m/s or kn)
- Wind shear
- Wind direction (degrees)
- Temperature (Celsius degrees)
- Dew point (Celsius degrees)
- Pressure (hPa or mmHg)
- Pressure unit (hPa or mmHg)
- Visibility (m or miles)
- Cloud coverage
- Weather conditions information from WX codes
- Runway visibility (m or feet)
- Airport Name
- Longitude
- Latitude
- Elevation
- Decode Date
- Original METAR text

Examples

```
metar_print("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_print("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180",
altimeter = TRUE, metric = FALSE)
metar_print("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
metar_print("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005", altimeter = TRUE)
metar_print("CYWG 172000Z 30015G25KT 3/4SM R36/4000FT/D -SN M05/M08 A2992")
metar_print("202103251800 METAR COR NFTL 251800Z 00000KT SCT017TCU BKN290 25/25 Q1014")
```

---

metar_rwy_visibility   *Get runway(s) visibility.*

Description

Function extracts runway(s) visibility value(s) from METAR weather report.

Usage

```
metar_rwy_visibility(x, metric = TRUE, sep = ";")
```

Arguments

x	Input character vector
metric	logical; if TRUE, the default value, runway(s) visibility is returned in meters, if FALSE then in feet.
sep	character; comma or semicolon, used for separating decoded elements of weather conditions information.

Value

A numeric vector. A visibility in m/s or feet.

Examples

```
metar_rwy_visibility("EBBR 040220Z VRB01KT 0150 R25L/1200N R02/P1500 07/06 Q1017")
metar_rwy_visibility("EBBR 040220Z VRB01KT 0150 R25R/0600FT R02/P1500 07/06 Q1017")
metar_rwy_visibility("EDDF 220520Z 26003KT 0500 R25R/0400N R18/0650V1100N FZFG", sep = ",")
metar_rwy_visibility("CYWG 172000Z 30015G25KT 3/4SM R36/4000FT/D -SN M05/M08 A2992")
metar_rwy_visibility("EBBR 040220Z VRB01KT 0150 R25L/1200N R26R/1000 R36/4000FT/D -SN")
```

---

metar_speed   *Get wind speed*

Description

Extract a wind speed value from METAR weather report.

Usage

```
metar_speed(x, metric = TRUE, check = FALSE)
```

Arguments

x	character vector; METAR weather report or reports.
metric	logical; the default value is TRUE and a returned wind speed is in m/s; if it's FALSE then in knots.
check	logical; the default value is FALSE, if METAR report fails the syntax check, NA value will be returned. If FALSE, zero values will be returned for METAR reports with incorrect syntax.

Value

a numeric vector. A wind speed in m/s or in knots.

Examples

```
metar_speed("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_speed("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180", metric = FALSE)
metar_speed("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025 NOSIG= NOSIG=")
metar_speed("EPKK 141730Z VRB01KT CAVOK 21/16 Q1028")
```

---

metar_temp   *Get temperature.*

Description

Extract a temperature value from METAR weather report.

Usage

```
metar_temp(x, check = FALSE)
```

Arguments

x	character vector; a METAR weather report or reports.
check	logical; if TRUE the syntax of METAR reports will be checked.

Value

a numeric vector with temperature in degrees Celsius.

Examples

```
metar_temp("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_temp("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180")
metar_temp("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025 NOSIG=")
metar_temp("METAR KEWR 010851Z 27010KT 10SM BKN210 04/M03 A2969 RMK SLP054
T00391033 52012")
```

---

metar_time_zone   *Get time zone.*

Description

Extract a time zone of METAR weather report.

Usage

```
metar_time_zone(x)
```

Arguments

x   character; a METAR weather report or reports.

Value

a character vector with time zone.

Examples

```
metar_time_zone("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_time_zone("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180")
metar_time_zone("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
```

---

metar_visibility   *Get visibility information.*

Description

Extract and parse visibility information from METAR weather report.

Usage

```
metar_visibility(x, metric = TRUE, numeric_only = FALSE)
```

Arguments

x	character vector; a METAR weather report or reports.
metric	For the default metric = TRUE returned distances are in meters. If it's FALSE, in miles.
numeric_only	logical; if TRUE only a numeric value will be returned

Value

a numeric vector with visibility information, in meters or miles.

Examples

```
metar_visibility("EPWA 281830Z 18009KT 140V200 9999 SCT037 03/M01 Q1008 NOSIG")
metar_visibility("CYUL 281800Z 13008KT 30SM BKN240 01/M06 A3005 RMK CI5 SLP180")
metar_visibility("201711271930 METAR LEMD 271930Z 02002KT CAVOK 04/M03 Q1025")
metar_visibility("KBLV 011657Z AUTO 25015G30KT 210V290 3/8SM R32L/1000FT FG
BKN005 01/M01 A2984")
```

---

metar_windshear   *Get wind shear information.*

Description

Function extracts information about wind shear from METAR weather report.

Usage

```
metar_windshear(x, metric = TRUE)
```

Arguments

x	character vector; METAR weather report or reports.
metric	For the default metric = TRUE a returned wind speed is in m/s. If it's FALSE, in knots.

Value

A character vector with information about wind shear.

Examples

```
metar_windshear("METAR VHHH 180800Z 12009KT 060V150 FEW010 SCT045 22/18 Q1012 WS R07R")
metar_windshear("CYWG 172000Z 30015G25KT 3/4SM R36/4000FT/D M05/M08 A2992 WS RWY36")
metar_windshear("KPIT 091730Z 091818 22020KT 3SM -SHRA BKN020 WS015/30045KT",
 metric = FALSE)
```

---

metar_wx_codes   *Get weather conditions information.*

Description

Extract and parse weather conditions information METAR WX codes.

Usage

```
metar_wx_codes(x, sep = ";")
```

Arguments

x	Input character vector
sep	character; comma or semicolon, used for separating decoded elements of weather conditions information.

Value

A character vector. with METAR WX codes.

Examples

```
metar_wx_codes("METAR EPWA 132100Z 29006KT 260V320 8000 SHRA SCT009 BKN025CB 18/17 Q1011")
metar_wx_codes("CYUL 101900Z 27015G25KT 15SM DRSN SCT028 BKN090 OVC110 M04/M10 A2973 RMK")
metar_wx_codes("METAR EPKK 200300Z 23014KT 9999 -SHSN SCT009CB BKN012 01/M00 Q1008", sep = ",")
metar_wx_codes("202001190045 METAR KEWR 190045Z 19008KT 4SM -RA -PL BR FEW007 01/M01 A2995")
```

---

mst	*Secondary airport list*

Description

A character vector containing the list of airports.

Format

A character vector with the length of 10113 items

Details

From https://www.aviationweather.gov/ A data set is in the public domain according to https://www.weather.gov/disclaimer

Author(s)

Greg Thompson from National Weather Service NCAR/RAP, NOAA National Weather Service

References

https://weather.ral.ucar.edu/surface/stations.txt,

---

ourairports	*Main list of airports*

Description

#' A dataset containing the list of airports

Format

A data frame with 28935 rows and 12 variables

Details

From https://ourairports.com A data set is in the public domain according to https://ourairports.com/data/

- id; identification number
- ident; airport ICAO code
- type; airport type
- name; airport name
- latitude_deg; geographical latitude

- longitude_deg; geographical longitude
- elevation_ft; airport elevation in feet
- elevation_m; airport elevation in meters
- iso_country; ISO country code
- iso_region; ISO region code
- municipality;
- iata_code; airport IATA code

Author(s)

David Megginson

References

<https://ourairports.com/data/>

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