Package ‘nycflights13’

September 16, 2019

Title Flights that Departed NYC in 2013

Version 1.0.1

Description Airline on-time data for all flights departing NYC in 2013. Also includes useful 'metadata' on airlines, airports, weather, and planes.

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URL http://github.com/hadley/nycflights13

BugReports https://github.com/hadley/nycflights13/issues

Depends R (>= 3.2)

Imports tibble

Suggests dplyr

Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

NeedsCompilation no

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### airlines

**Airline names.**

**Description**

Look up airline names from their carrier codes.

**Usage**

airlines

**Format**

Data frame with columns

- **carrier** Two letter abbreviation.
- **name** Full name.

**Source**

[https://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=236](https://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=236)

**Examples**

airlines

### airports

**Airport metadata**

**Description**

Useful metadata about airports.

**Usage**

airports

**Format**

A data frame with columns:

- **faa** FAA airport code.
- **name** Usual name of the airport.
- **lat, lon** Location of airport.
- **alt** Altitude, in feet.
flights

**tz**  Timezone offset from GMT.


**tzone**  IANA time zone, as determined by GeoNames webservice.

**Source**


**Examples**

```r
airports

if (require("dplyr")) {

airports %>% rename(dest = faa) %>% semi_join(flights)
flights %>% anti_join(airports %>% rename(dest = faa))
airports %>% rename(origin = faa) %>% semi_join(flights)
}
```

---

**flights**

*Flights data*

**Description**

On-time data for all flights that departed NYC (i.e. JFK, LGA or EWR) in 2013.

**Usage**

flights

**Format**

Data frame with columns

- **year, month, day**  Date of departure.
- **dep_time, arr_time**  Actual departure and arrival times (format HHMM or HMM), local tz.
- **sched_dep_time, sched_arr_time**  Scheduled departure and arrival times (format HHMM or HMM), local tz.
- **dep_delay, arr_delay**  Departure and arrival delays, in minutes. Negative times represent early departures/arrivals.
- **carrier**  Two letter carrier abbreviation. See airlines to get name.
- **flight**  Flight number.
- **tailnum**  Plane tail number. See planes for additional metadata.
- **origin, dest**  Origin and destination. See airports for additional metadata.
planes

**air_time**  Amount of time spent in the air, in minutes.

**distance**  Distance between airports, in miles.

**hour, minute**  Time of scheduled departure broken into hour and minutes.

**time_hour**  Scheduled date and hour of the flight as a POSIXct date. Along with origin, can be used to join flights data to weather data.

**Source**

RITA, Bureau of transportation statistics, [https://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=236](https://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=236)

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**Description**

Plane metadata for all plane tailnumbers found in the FAA aircraft registry. American Airways (AA) and Envoy Air (MQ) report fleet numbers rather than tail numbers so can’t be matched.

**Usage**

planes

**Format**

A data frame with columns:

**tailnum**  Tail number.

**year**  Year manufactured.

**type**  Type of plane.

**manufacturer, model**  Manufacturer and model.

**engines, seats**  Number of engines and seats.

**speed**  Average cruising speed in mph.

**engine**  Type of engine.

**Source**

weather

Examples
planes

if (require("dplyr")) {

  # Flights that don't have plane metadata
  flights %>% anti_join(planes, "tailnum")
}

---

weather  

Hourly weather data

Description

Hourly meteorological data for LGA, JFK and EWR.

Usage

weather

Format

A data frame with columns

- **origin**  Weather station. Named origin to facilitate merging with flights data.
- **year, month, day, hour**  Time of recording.
- **temp, dewp**  Temperature and dewpoint in F.
- **humid**  Relative humidity.
- **wind_dir, wind_speed, wind_gust**  Wind direction (in degrees), speed and gust speed (in mph).
- **precip**  Precipitation, in inches.
- **pressure**  Sea level pressure in millibars.
- **visib**  Visibility in miles.
- **time_hour**  Date and hour of the recording as a POSIXct date.

Source

ASOS download from Iowa Environmental Mesonet, https://mesonet.agron.iastate.edu/request/download.phtml.
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