Package ‘nycflights13’

January 27, 2017

Title Flights that Departed NYC in 2013
Version 0.2.2
Description Airline on-time data for all flights departing NYC in 2013.
Also includes useful 'metadata' on airlines, airports, weather, and planes.
License CC0
LazyData true
Depends R (>= 2.10)
Imports tibble
Suggests dplyr

URL http://github.com/hadley/nycflights13
BugReports https://github.com/hadley/nycflights13/issues
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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**

http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=236

**Examples**

airlines

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### 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
if (require("dplyr")) {
  airports

  airports %>% mutate(dest = faaI %>% semi_join(flightsI
  flights %>% anti_join(airports %>% mutate(dest = faaI
  airports %>% mutate(origin = faaI %>% semi_join(flightsI

  )
```

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, local tz.
- sched_dep_time,sched_arr_time  Scheduled departure and arrival times, local tz.
- dep_delay,arr_delay  Departure and arrival delays, in minutes. Negative times represent early departures/arrivals.
- hour,minute  Time of scheduled departure broken into hour and minutes.
- carrier  Two letter carrier abbreviation. See airlines to get name
- tailnum  Plane tail number
- flight  Flight number
- 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
- **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**


---

planes  

**Plane metadata.**

**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 (e.g. [http://www.flyerguide.com/Tail_Numbers_(AA)](http://www.flyerguide.com/Tail_Numbers_(AA)) 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**


**Examples**

```r
if (require("dplyr")) {
  planes

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

---

**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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