Package ‘nycflights13’

June 26, 2018

**Title** Flights that Departed NYC in 2013

**Version** 1.0.0

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

**License** CC0

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

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

**Depends** R (>= 2.10)

**Imports** tibble

**Suggests** dplyr

**LazyData** true

**RoxygenNote** 6.0.1

**NeedsCompilation** no

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**Repository** CRAN

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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

**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
if (require("dplyr")) {
  airports
  airports %>% mutate(dest = faa) %>% semi_join(flights)
  flights %>% anti_join(airports %>% mutate(dest = faa))
  airports %>% mutate(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.
- **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**

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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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 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

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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