Package ‘nycflights13’

April 12, 2021

Title Flights that Departed NYC in 2013
Version 1.0.2
Description Airline on-time data for all flights departing NYC in 2013. Also includes useful 'metadata' on airlines, airports, weather, and planes.
License CC0
URL https://github.com/hadley/nycflights13
BugReports https://github.com/hadley/nycflights13/issues
Depends R (>= 3.2)
Imports tibble
dplyr
Encoding UTF-8
LazyData true
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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 %>% 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)

planes  

---

**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

FAA Aircraft registry, [https://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/releasable_aircraft_download/](https://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/releasable_aircraft_download/)
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](https://mesonet.agron.iastate.edu/request/download.phtml).
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