Package ‘nycflights13’

October 13, 2022

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
Suggests dplyr
Encoding UTF-8
LazyData true
LazyDataCompression bzip2
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### airlines

**Airline names.**

#### Description

Look up airline names from their carrier codes.

#### Usage

```r
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

```r
airlines
```

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### airports

**Airport metadata**

#### Description

Useful metadata about airports.

#### Usage

```r
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.
tz  Timezone offset from GMT.


tzone  IANA time zone, as determined by GeoNames webservice.

Source


Examples

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)
}

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

date  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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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/)
Examples

```r
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**

```r
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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