

# Package ‘nasaweather’

October 13, 2022

**Title** Collection of datasets from the ASA 2006 data expo

**Version** 0.1

**Description** This package contains tidied data from the ASA 2006 data expo, as well as a number of useful other related data sets.

**Depends** R (>= 3.1.0)

**License** GPL-3

**LazyData** true

**URL** <http://github.com/hadley/nasaweather>,  
<http://stat-computing.org/dataexpo/2006/>

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**NeedsCompilation** no

**Repository** CRAN

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atmos

*Atmospheric data.*

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### Description

Atmospheric data.

### Usage

atmos

### Format

**lat,long** Location of measurement. Evenly spaced 24 by 24 spatial grid from longitude 113.8W to 56.2W and from latitude 36.2N to 21.2S

**year,month** 72 points in time; once per month from Jan 1995 to Dec 2000.

**surftemp** Mean Surface Temperature from Clear Sky Composite (ts): The monthly mean temperature based on the energy being emitted from the Earth's surface under clear sky conditions (in K).

**temp** Mean Near-Surface Air Temperature (tsa\_tovs): The monthly mean temperature of the air near the surface of the Earth (in K).

**pressure** Mean Surface Pressure (ps\_tovs): The monthly mean atmospheric surface pressure at a given location on the Earth's surface. (in mb)

**ozone** Mean Ozone Abundance (o3\_tovs): The monthly mean amount of total ozone in the atmospheric column (in Dobsons)

**cloudlow** Mean Low Cloud Coverage (ca\_low): The monthly mean percent of the sky covered by clouds with cloud top pressure greater than 680 mb or roughly less than 3.24 km.

**cloudmid** Mean Medium Cloud Coverage (ca\_med): The monthly mean percent of the sky covered by clouds with cloud top pressure between 440 - 680 mb or roughly 3.24 to 6.5 km.

**cloudhigh** Mean High Cloud Coverage (ca\_high): The monthly mean percent of the sky covered by clouds with cloud top pressure less than or equal to 440 mb or roughly greater than 6.5 km.

### Source

<http://stat-computing.org/dataexpo/2006/>

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borders	<i>Country borders</i>
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**Description**

Admin 0 (country) borders for the region

**Usage**

borders

**Format**

**country** ISO2 country code

**long,lat** Location

**group** Grouping variable need to separate islands etc.

**Source**

<http://www.naturalearthdata.com/downloads/50m-cultural-vectors/>

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elev	<i>Elevation.</i>
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**Description**

As of Jan 1998.

**Usage**

elev

**Format**

**lat,long** Location of measurement. Evenly spaced 24 by 24 spatial grid from longitude 113.8W to 56.2W and from latitude 36.2N to 21.2S

**elev** Height of location above reference plane (in m)

**Source**

<http://stat-computing.org/dataexpo/2006/>

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glaciers

*Glacier locations*

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### Description

Downloaded by Dianne Cook.

### Usage

glaciers

### Format

**id** A 12-character unique glacier identifier

**name** 30-character name of the glacier.

**lat,long** Location of the glacier: "The point on the glacier whose coordinates are given should be in the upper part of the ablation area, in the main stream and sufficiently high so as not to be lost if the glacier retreats"

**area** The total area of the glacier in a horizontal projection in square kilometers, up to 6 digits.

**country** 2-character abbreviation for the name of the country or territory in which the glacier is located. These codes are ISO3166 country codes

### Source

[http://nsidc.org/data/glacier\\_inventory/](http://nsidc.org/data/glacier_inventory/)

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storms

*Storm tracks data*

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### Description

Tropical cyclone tracks through the Atlantic Ocean, Caribbean Sea and Gulf of Mexico from 1995 to 2005. Only "named" storms, those which reached tropical storm status or stronger, are included.

### Usage

storms

**Format**

**name** Storm Name

**year,month,day** Date of report

**hour** Hour of report (0, 6, 12 or 18, in UTC)

**lat,long** Location of storm center

**pressure** Air pressure at the storm's center (in millibars)

**wind** Storm's maximum sustained wind speed (in knots)

**type** Storm classification (Tropical Depression, Tropical Storm, Hurricane, or Extratropical)

**seasday** Day of the hurricane season (days since June 1)

**Details**

The data originated from the National Hurricane Center's archive of Tropical Cyclone Reports (<http://www.nhc.noaa.gov/>). This dataset was hand-scraped from best track tables in the individual tropical cyclone reports (PDF, HTML and Microsoft Word) by Jon Hobbs.

The Tropical Cyclone Reports had a variety of storm type designations and there appeared to be no consistent naming convention for cyclones that were not hurricanes, tropical depressions, or tropical storms. Many of these designations have been combined into the "Extratropical" category in this dataset.

**Author(s)**

Jon Hobbs

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