Layer Name: RFAtlasStations, StationMeanData.shp

Layer Type: Point

Status: Complete

Geog. Extent: Islands of Hawaiʻi, Kahoʻolawe, Kauaʻi, Lānaʻi, Maui, Molokaʻi and Oʻahu

Projection: Geographic Coordinate System

Datum: World Geodetic System 1984 (WGS84)

Description: Raingages used in the Rainfall Atlas Analysis on the main Hawaiian Islands. Includes mean rainfall data values and uncertainty values.

Source: 2011 Rainfall Atlas of Hawaiʻi, http://rainfall.geography.hawaii.edu/

History: As part of the Rainfall Atlas project, a large effort was made to improve station coordinates. Coordinates were updated from the Old Hawaiian Datum, and multiple sources (including the GIS layer produced by DLNR in 1997) and methods were use to correct discrepancies and errors in locations. We acknowledge that there are probably still many errors in the dataset, but these are the most accurate and up-to-date coordinates at this time.

Please see Rainfall Atlas final report appendix for full method details: http://rainfall.geography.hawaii.edu/downloads.html

Attributes: Points

SKN	State Key Number (unique identifying number for each station)
Name	Name of raingage station*
Lat_DD	Latitude in decimal degrees
Lon_DD	Longitude in decimal degrees
LatDeg	Latitude degrees (DMS – degree-minute-seconds – format)
LatMin	Latitude minutes (DMS format)
LatSec	Latitude seconds (DMS format)
LonDec	Longitude degrees (DMS format)
LonMin	Longitude minutes (DMS format)
LonSec	Longitude seconds (DMS format)
NorthingY	UTM Zone 4 (Meters) Northing (Y) coordinates
EastingX	UTM Zone 4 (Meters) Easting (X) coordinates
ElevFT	Elevation in Feet
ElevM	Elevation in Meters
Observer	Station observer name
MinYear	Minimum year on record (year established)**

MaxYear	Maximum year on record (year discontinued)**. "Present" means the MaxYear is ≥ 2007.
NumMosWith	Number of months (out of 12) with a mean value
JanAvgIN	Mean January rainfall in inches (if mean is missing, value is -9999)
FebAvgIN	Mean February rainfall in inches
MarAvgIN	Mean March rainfall in inches
AprAvgIN	Mean April rainfall in inches
MayAvgIN	Mean May rainfall in inches
JunAvgIN	Mean June rainfall in inches
JulAvgIN	Mean July rainfall in inches
AugAvgIN	Mean August rainfall in inches
SepAvgIN	Mean September rainfall in inches
OctAvgIN	Mean October rainfall in inches
NovAvgIN	Mean November rainfall in inches
DecAvgIN	Mean December rainfall in inches
AnnAvgIN	Mean Annual rainfall in inches, sum of monthly values. Only has a value if all 12 months have a value (otherwise no mean is calculated, -9999)
JanAvgMM	Mean January rainfall in millimeters (mm) (if no mean, value is -9999)
FebAvgMM	Mean February rainfall in mm
MarAvgMM	Mean March rainfall in mm
AprAvgMM	Mean April rainfall in mm
MayAvgMM	Mean May rainfall in mm
JunAvgMM	Mean June rainfall in mm
JulAvgMM	Mean July rainfall in mm
AugAvgMM	Mean August rainfall in mm
SepAvgMM	Mean September rainfall in mm
OctAvgMM	Mean October rainfall in mm
NovAvgMM	Mean November rainfall in mm
DecAvgMM	Mean December rainfall in mm
AnnAvgMM	Mean Annual rainfall in mm, sum of monthly values. Only has a value if all 12 months have a value (otherwise no mean is calculated, -9999)
JanSD_in	January uncertainty values in inches (if there is no mean for this month, the uncertainty will also be -9999). Converted from variance values by taking the square root.
FebSD_in	February uncertainty values in inches
MarSD_in	March uncertainty values in inches
AprSD_in	April uncertainty values in inches
MaySD_in	May uncertainty values in inches
JunSD_in	June uncertainty values in inches
JulSD_in	July uncertainty values in inches
AugSD_in	August uncertainty values in inches
SepSD_in	September uncertainty values in inches

OctSD_in	October uncertainty values in inches
NovSD_in	November uncertainty values in inches
DecSD_in	December uncertainty values in inches
AnnSD_in	Annual uncertainty values in inches (annual uncer. is not the sum of the monthly uncer., it is the square root of the sum of the monthly variances).
JanSD_mm	January uncertainty values in mm (if there is no mean for this month, the uncertainty will also be -9999)
FebSD_mm	February uncertainty values in mm
MarSD_mm	March uncertainty values in mm
AprSD_mm	April uncertainty values in mm
MaySD_mm	May uncertainty values in mm
JunSD_mm	June uncertainty values in mm
JulSD_mm	July uncertainty values in mm
AugSD_mm	August uncertainty values in mm
SepSD_mm	September uncertainty values in mm
OctSD_mm	October uncertainty values in mm
NovSD_mm	November uncertainty values in mm
DecSD_mm	December uncertainty values in mm
AnnSD_mm	Annual uncertainty values in mm (annual uncer. is not the sum of the monthly uncer., it is the square root of the sum of the monthly variances).
CntJan	The number of years (values) that were used in the 30 year average for January (Up to 3 missing years were accepted. If this number is less than 27, the mean was not calculated and is given as -9999, missing)
CntOrigJan	The number of monthly values that were *original* data (not filled) between 1978 and 2007 for January
CntFeb	The number of years used in the 30 year average for February (the number of years with data between 1978-2007)
CntOrigFeb	The number of *original* values used in the February Mean
CntMar	The number of years used in the 30 year average for March
CntOrigMar	The number of *original* values used in the March Mean
CntApr	The number of years used in the 30 year average for April
CntOrigApr	The number of *original* values used in the April Mean
CntMay	The number of years used in the 30 year average for May
CntOrigMay	The number of *original* values used in the May Mean
CntJun	The number of years used in the 30 year average for June
CntOrigJun	The number of *original* values used in the June Mean
CntJul	The number of years used in the 30 year average for July
CntOrigJul	The number of *original* values used in the July Mean
CntAug	The number of years used in the 30 year average for August
CntOrigAug	The number of *original* values used in the August Mean

CntSep	The number of years used in the 30 year average for September
CntOrigSep	The number of *original* values used in the September Mean
CntOct	The number of years used in the 30 year average for October
CntOrigOct	The number of *original* values used in the October Mean
CntNov	The number of years used in the 30 year average for November
CntOrigNov	The number of *original* values used in the November Mean
CntDec	The number of years used in the 30 year average for December
CntOrigDec	The number of *original* values used in the December Mean
DataSource	Summary of the data sources (Fill or NRFill refer to Eischeid method filling or Normal Ratio method filling). See report for more details.
StationSta	Station Status: Current, Discontinued, or Virtual

*The coordinates are only given to two decimal places at the request of the observer
**Some of the data were removed due to an inhomogeneity.

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