



Recent Lightning Strikes for Large Region - v3

Domain Portfolio: Observations | Domain: Historical | Usage Classification: **Limited Availability**

Geography: Global

Attribution Required: N/A

Attribution Requirements: N/A

Overview

The Lightning API provides the ability to lookup recent lightning strikes that happened for a given period of time in the specified region. This API supports search by: Geocode (Latitude and Longitude), Postal Key, IATA Code, ICAO Code and Place ID. This API provides recent lightning strikes data for the specified period within 200 mile (or 325 km) radius from the specified location.

HTTP Headers and Data Lifetime - Caching and Expiration

For details on appropriate header values as well as caching and expiration definitions, please see [The Weather Company Data | API Common Usage Guide](#).

Atomic Endpoints	Aggregate Product Name
v3/wx/lightning/recent/largeRegion/15seconds	v3-wx-lightning-recent-largeRegion-15seconds
v3/wx/lightning/recent/largeRegion/1minute	v3-wx-lightning-recent-largeRegion-1minute
v3/wx/lightning/recent/largeRegion/5minute	v3-wx-lightning-recent-largeRegion-5minute
v3/wx/lightning/recent/largeRegion/15minute	v3-wx-lightning-recent-largeRegion-15minute

URL Construction

Request by Geocode: Required Parameters: startTime , format , units , geocode , apiKey Optional Parameters: strikeType https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startTime=<startTime>&geocode=<geocode>&format=<format>&units=<units>&apiKey=yourApiKey
https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startTime=20170921120515&geocode=33.74,-84.39&format=json&units=e&apiKey=yourApiKey
Request by IATA Code: Required Parameters: startTime , format , units , iataCode , apiKey Optional Parameters: strikeType https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startTime=<startTime>&iataCode=<iataCode>&format=<format>&units=<units>&apiKey=yourApiKey
https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startTime=20170921120515&iataCode=BOS&format=json&units=e&apiKey=yourApiKey
Request by ICAO Code: Required Parameters: startTime , format , units , icaoCode , apiKey Optional Parameters: strikeType https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startTime=<startTime>&icaoCode=<icaoCode>&format=<format>&units=<units>&apiKey=yourApiKey
https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startTime=20170921120515&icaoCode=KBOS&format=json&units=e&apiKey=yourApiKey
Request by Postal Key: Required Parameters: startTime , format , units , postalKey , apiKey Optional Parameters: strikeType

https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startDateTime=<startDateTime>&postalKey=<postalKey>&format=<format>&units=<units>&apiKey=yourApiKey
https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startDateTime=20170921120515&postalKey=01810:US&format=json&units=e&apiKey=yourApiKey
Request by Place ID: Required Parameters: startDateTime, format, units, placeid, apiKey Optional Parameters: strikeType https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startDateTime=<startDateTime>&placeid=<placeid>&format=<format>&units=<units>&apiKey=yourApiKey
https://api.weather.com/v3/wx/lightning/recent/largeRegion/15seconds?startDateTime=20170921120515&placeid=327145917e06d09373dd2760425a88622a62d248fd97550eb4883737d8d1173b&format=json&units=e&apiKey=yourApiKey

Valid Parameter Definitions

Parameter	Description	Example
startDateTime	Start date time of period request in UTC. The start date time must be within past 1 hour from the current time. For example, if the current time is "13-Dec-2017 09:27:21", then a valid startDateTime would be between "13-Dec-2017 08:27:21" and "13-Dec-2017 09:27:21" For 15seconds endpoint, the format must be YYYYMMDDHHmmss and seconds (ss) value must be an interval of 15. For example: 00, 15, 30, 45. For 1minute endpoint, the format must be YYYYMMDDHHmm and minute (mm) value must be any value from 00 to 59. For 5minute endpoint, the format must be YYYYMMDDHHmm and minute (mm) value must be an interval of 5. For example: 00, 05, 10, ... , 50, 55. For 15minute endpoint, the format must be YYYYMMDDHHmm and minute (mm) value must be an interval of 15. For example: 00, 15, 30, 45.	20170925120015 201709251201 201709251205 201709251215
format	The format in which the response is to be returned.	json
units	For units = e, the output fields errorMajor and errorMinor will be in miles. For units = m, the output fields errorMajor and errorMinor will be in kilometers.	e
geocode	The geocode of the location for which lightning strikes is to be returned. The geocode is in the format latitude,longitude. The latitude and longitude is a double value having precision of not more than 6 digits.	42.375,-71.039
iataCode	The International Air Transport Association (IATA) airport code for which lightning strikes is to be returned.	BOS
icaoCode	The International Civil Aviation Organization (ICAO) airport code for which lightning strikes is to be returned.	KBOS
postalKey	Postal Key is a composite location identifier key of postal code:country code.	01810:US
placeid	A unique place identifier.	779593cd7a42a5d9f680b0f136acc297dfddbc942e3c1b5a550476dba0bcd76d
strikeType	strikeTypeCode of cloud = cloud to cloud strike type strikeTypeCode of ground = cloud to ground strike type strikeTypeCode of all = both cloud to cloud AND cloud to ground strike types	cloud

Data Elements & Definitions

Note: Field names are sorted alphabetically in the table below for presentation purposes. The table below does not represent the sort order of the API response.

Field Name	Description	Type	Range	Sample	Nulls Allowed
------------	-------------	------	-------	--------	---------------

“lightning”		[array]			
errorAzimuth	Azimuth of error ellipse, in degrees. Clockwise bearing from 0 degrees north.	[decimal]	0 to 180.0	23.37	N
errorMajor	Error ellipse semi-major axis length	[decimal]	0 to 50.0 km for units = m and 0 to 80.0 mi for units = e	1.2116768	N
errorMinor	Error ellipse semi-minor axis length	[decimal]	0 to 50.0 km for units = m and 0 to 80.0 mi for units = e	1.1060435	N
detectedTimeUtc	Time when the strike was made available, UTC timezone.	[string]	ISO 8601 with milliseconds precision	2017-03-30T13:57:39.458+00:00	N
intensity	Magnitude and polarity of strike	[decimal]	Any integer	15000	N
latitude	Latitude of strike location up to five (5) decimals	[decimal]	-90.0 to 90.0	-1.79979	N
longitude	Longitude of strike location up to five (5) decimals	[decimal]	-180.0 to 180.0	-44.54565	N
sensorsInvolved	Number of sensors involved in detecting the lightning strike	[integer]	Any integer greater than 0.	3	N
strikeTypeCode	Cloud indicator	[integer]	0 or 1: 0 means cloud to ground, 1 means cloud to cloud	0	N
validTimeUtc	Valid time of strike (the time the lightning strike actually occurred), UTC timezone	[string]	ISO 8601 with milliseconds precision	2017-03-30T13:57:31.231+00:00	N

JSON Sample

```
{
  "metadata": {
    "status_code": 200,
    "version": "1.0",
    "transaction_id": "1506003035369:1667353793",
    "units": "e",
    "expire_time_gmt": 1506006635,
    "icaoCode": "VABB",
    "radius": 200
  },
  "success": true,
  "lightning": {
    "intensity": [
      -10000,
      -38000
    ],
    "sensorsInvolved": [
      1,
      4
    ],
    "strikeTypeCode": [
      0,
      0
    ],
    "errorAzimuth": [
```

```
    29.4,  
    36.1  
  ],  
  "errorMajor": [  
    1.2116768,  
    1.1246847  
  ],  
  "errorMinor": [  
    1.1060435,  
    0.9258454  
  ],  
  "latitude": [  
    18.206506,  
    18.247723  
  ],  
  "longitude": [  
    75.542999,  
    75.676939  
  ],  
  "validTimeUtc": [  
    "2017-09-21T13:59:14.221+0000",  
    "2017-09-21T13:59:14.268+0000"  
  ],  
  "detectedTimeUtc": [  
    "2017-09-21T14:00:09.000+0000",  
    "2017-09-21T14:00:09.000+0000"  
  ]  
}  
}
```