

# Ourcast API specification

*Last updated: August 2014*

The API is accessible at <https://minutelyapi.ourcast.com>. Fields should be passed in as GET parameters. The client's API key must also be passed as a GET parameter, called "key", for all API calls. Responses are in JSON.

## Functions

### Rain forecast

URL: /api/raincast

Query the two-hour rain forecast for a given location.

Request (client to server):

Field	Description
lat	Latitude. Required, unless specifying "address" instead.
lng	Longitude. Required, unless specifying "address" instead.
address	Address can be specified instead of lat and lng. A full address is not required - just a zip code or the name of a city is adequate. Note that specifying a city will give you the raincast for the <i>center</i> of the city, which may not be the user's exact location. This field should <i>not</i> be used for a large volume of queries. If you wish to repeatedly query the rain forecast for the same address, please consider using "address" in the first instance, then caching the latitude-longitude from the response and using latitude-longitude for subsequent queries.

Response (server to client):

Field	Description
lat	Latitude. If an address was entered, this contains the geocoded latitude. Otherwise, it contains the latitude from the request.
lng	Longitude. If an address was entered, this contains the geocoded longitude. Otherwise, it contains the longitude from the request.

ocx	Ourcast Mercator grid x-coordinate.
ocy	Ourcast Mercator grid y-coordinate.
radar_prefix	This forms part of the URL for radar images.
raincast_datetime	“Time zero” of this forecast in UTC. The time is given in RFC3339 format, e.g.: 2013-10-04T03:52:20Z
raincast_unixtime	The same time as above, but as a Unix timestamp.
raincast	A list of numbers that represent the rain intensity for each minute, with the first number representing the intensity at “time zero”. Values below 10 represent such little precipitation that they can probably be ignored. The values are given in dBZ - radar reflectivity in decibels relative to Z. See: <a href="https://en.wikipedia.org/wiki/DBZ_(meteorology)">https://en.wikipedia.org/wiki/DBZ_(meteorology)</a>

## Ping

*URL: /api/ping*

Allows you to test connectivity and authentication to the API.

Request (client to server):

No fields required (other than your API key).

Response (server to client):

Field	Description
ping	pong

## Error handling

If an error occurs on any API call, the response will contain a field “error” with a message describing the error.

## General information

### Weather radar data sources

- USA: National Oceanic and Atmospheric Administration (NOAA)
- Australia: Bureau of Meteorology

The weather radar data is streamed live to Ourcast's servers, where we produce per-minute rain forecasts using our own algorithms.

### Coverage area

- United States
  - contiguous United States
  - Hawaii
  - Puerto Rico
  - *(Alaska not available)*
- Australia

## Useful resources

To manually test API queries, we recommend Postman, a free plugin for Google Chrome:  
<http://www.getpostman.com>