



Tropical Forecast - Projected Path - v2.0

Document Version 1.1

Domain Portfolio: Tropical | Domain: Forecast | Usage Classification: Standard

Geography: Global

Attribution Required: N/A

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Overview

The Tropical Forecast - Projected Path API provides the ability query the single projected path per active storm. Active storm - any storm that has reported in the last 168 hours. The Tropical Forecast - Projected Path API supports query by Basin, Selected Source, and Storm ID. Note: Storm ID may not be unique and this query may return multiple records.

Note: Storms will only pull from a designated source when calling by stormId.

- See the common usage and style guide which describes the common elements, error handling, language support, units and terminology used by the Weather Company Data APIs.
 - <https://ibm.co/APICom>

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](#).

Translated Fields:

This TWC API handles the translation of phrases. However, when formatting a request URL a valid language must be passed along (see the language code table for the supported codes).

- storm_type
- storm_sub_type
- storm_dir_cardinal

URL Construction

Atomic API URL Examples:	Aggregate Product Name	v2tropicalProjectedPath
Request by Source and Basin: Required Parameters: source, basin, language, format, units, nautical=(true, false) https://api.weather.com/v2/tropical/projectedpath?source=default&basin=all&language=en-US&format=<json or xml>&units=e&nautical=<true or false>&apiKey=yourApiKey		
https://api.weather.com/v2/tropical/projectedpath?source=default&basin=all&language=en-US&format=json&units=e&nautical=true&apiKey=yourApiKey		
Request by Storm ID: Required Parameters: stormId, language, format, units, nautical=(true, false) https://api.weather.com/v2/tropical/projectedpath?stormId=EP052016&language=en-US&format=<json or xml>&units=e&nautical=<true or false>&apiKey=yourApiKey		
https://api.weather.com/v2/tropical/projectedpath?stormId=EP052016&language=en-US&format=json&units=e&nautical=true&apiKey=yourApiKey		

Nautical Parameter

If nautical=true, then any measurement that could be represented as knots is, regardless of the units parameter. Anything that is not subject to nautical form is left in the requested units (which is why you see pressures switch back and forth with units even when nautical=true)

units=e&nautical=true will give pressures in inches-of-mercury and speeds in knots units=m&nautical=true will give pressures in millibars and speeds in knots units=e&nautical=false will give pressures in inches-of-mercury and speeds in mph units=m&nautical=false will give pressures in millibars and speeds in kph

Wind Averaging Period

Governmental organizations providing tropical data use different periods of time when averaging wind values. The United States uses 1 minute values, New Delhi uses 3 minute values and all others use a 10 minute value. This applies to the following fields found in the payload

Projected Path : wind_radii

Valid Parameters

The valid parameter values listed below are unique to this API and are cases sensitive. These parameters support the ability to ‘filter’ the request by the supported sources and basins.

Parameter: source	
Valid Parameter Value	Description
default	Data returned is limited to a TWC selected source for that basin. As additional sources are added worldwide, the default source for a particular basin may change.
all	Data returned for all sources for that basin.
Parameter: basin	
Valid Parameter Value	Description
all	Data returned for all supported basins (listed below).
AL	Atlantic Ocean
CP	Central Pacific
EP	Eastern Pacific Ocean
IO	Indian Ocean

SH	Southern Hemisphere
WP	Western Pacific

Data Elements & Definitions

Field Name	Description	Type	Range	Sample	Nulls Allowed
Advisory Info Object					
storm_key	Unique storm identifier through life of the storm	string		a87e1880a4870ae1b7d21049151d5edfa4e1011e	N
storm_id	Storm id. Format will vary by source. Not unique globally	string		EP022002	N
storm_name	Name assigned by issuing agency. Named storms are in proper case	string		Alberto	N
alternate_storm_name	‘Storm-name’ populated in Japanese when data is from JMA. Otherwise will be ‘null’	string		null	Y
source	Issuing Agency	string	NHC, CPHC, JTWC	NHC	N
basin	Basin identifier.	string	AL, CP, EP, IO, SH, WP NHC reports for: AL and EP CPHC report for CP JTWC reports for: EP, CP, IO, SH, WP	EP	N
dsgnt_source	true if a TWC selected provider	boolean	True or False	TRUE	N
issue_office	Office issuing bulletin	string		KNHC	N
wmo_id	For sources NHC, WPC and JTWC this data field will contain a value	string		WTPZ34	Y
bulletin_id	Internal use only	string		a87e1880a4870ae1b7d21049151d5edfa4e1011e	N
issue_dt_tm	Time Issuing Agency creates the bulletin	date	ISO 8601 – YYYY-MM-DDTHH:MI:SS±HHMI or Z	2015-01-13T01:00:00-00:00	N
issue_dt_tm_tz_cd	IANA code for issue_dt_tm	string		America/New York	N
issue_dt_tm_tz_abbrv	Time zone abbreviation for issue_dt_tm	string		EDT	N
process_time_gmt	Time SUN processed bulletin	epoch		1421175600	N
adv_num	Issuing Agency advisory number	string		12A	Y
adv_dt_tm	Advisory time	date	ISO 8601 – YYYY-MM-DDTHH:MI:SS±HHMI or Z	2015-01-13T10:00:15-08:00	N
adv_dt_tm_tz_cd	IANA code for adv_dt_tm	string		America/New York	N
adv_dt_tm_tz_abbrv	Time zone abbreviation for adv_dt_tm	string		EDT	N
nxt_cmplt_advstry_dt_tm	Anticipated next advisory issue time. Is null if final_advisory = true OR we could not extract next update time	date	ISO 8601 – YYYY-MM-DDTHH:MI:SS±HHMI or Z	2015-01-13T10:00:00-08:00	Y
nxt_cmplt_advstry_dt_tm_tz_cd	IANA code for nxt_cmplt_advstry_dt_tm	string		America/New York	Y
nxt_cmplt_advstry_dt_tm_tz_abbrv	Time zone abbreviation for nxt_cmplt_advstry_dt_tm	string		EDT	Y

final_advisory	Indicates the final advisory issued from the primary source. The value only mirrors the indication within an advisory itself that it is the final advisory. However, it is possible that an issuing office may reissue an advisory if the storm moves back into their area of responsibility.	boolean		true	Y
expire_time_gmt	168 hours past the last advisory time. Suggested removal time.	epoch		1421175600	N
Forecast Object					
fcst_hour	Forecast time steps	integer	12,36,48,72,96 and 120 (Effective 5/15/20 NHC will add a 60 hour forecast object)	12	N
fcst_dt_tm	Forecast time	date	ISO 8601 – YYYY-MM-DDTHH:MI:SS±HHMI or Z	2015-01-13T01:00:00-05:00	N
fcst_dt_tm_tz_cd	IANA code	string		America/New York	N
fcst_dt_tm_tz_abbrv	Time zone abbreviation	string		EDT	N
latitude	Forecast latitude of the storm	decimal		22.8	N
latitude_hemisphere	Latitude hemisphere	string		S	N
longitude	Forecast longitude of the storm	decimal		-113.7	N
longitude_hemisphere	Longitude hemisphere	string		W	N
storm_number	Given for only named storms leveraging JMA data. Othwise null	integer		null	Y
storm_type_cd	Encoded storm type	string	TD, TS, HU, SS, PT, RO, SD, EX, LOW, PTC, TY, ST, TC,	HU	N
storm_type	Storm type	string	NHC, WPC storm types: Tropical Depression, Tropical Storm, Hurricane, Subtropical Storm, Post-tropical cyclone, Remnants of, Subtropical Depression, Extratropical, Extra Tropical Low, Potential Tropical Cyclone JTWC storm types: Typhoon, Super Typhoon, Tropical Cyclone,	Hurricane	N
storm_sub_type_cd	Encoded storm sub type	string	1, 2, 3, 4, 5	1	Y
storm_sub_type	Storm sub type	string	Category 1 Hurricane Category 2 Hurricane Category 3 Hurricane Category 4 Hurricane Category 5 Hurricane Category 1 Tropical Cyclone Category 2 Tropical Cyclone Category 3 Tropical Cyclone Category 4 Tropical Cyclone Category 5 Tropical Cyclone Cyclonic Storm Severe Cyclonic Storm Very Severe Cyclonic Storm Extremely Severe Cyclonic Storm Super Cyclonic Storm	Category 5 Hurricane Note: In EP, CP, and AL, only storm_type=HU (Hurricane) has a sub_type In WP, no storm_type has a sub_type In IO and SH, storm_type=TC (Tropical Cyclone) has a sub_type. If storm_type=TC in another basin, it will not have a sub_type.	Y
suppressed	Suppress the forecast hour (true or false)	boolean		true	N
max_sustained_wind	Maximum sustained winds	integer		45	N

wind_gust	Wind gust	integer		70	Y
Endpoints Object					
endpoint_left_lat	Left forecast cone latitude	decimal		55.10	N
endpoint_left_lon	Left forecast cone longitude	decimal		-47.10	N
endpoint_right_lat	Right forecast cone latitude	decimal		57.90	N
endpoint_right_lon	Right forecast cone longitude	decimal		-47.90	N
Storm Wind Radius Object Values					
radii_wspd	Wind speed for the associated quadrant	integer		64	N
NE	Distance from the forecast position of the storm in the NE quadrant where radii_wspd begin	integer		75	N
SE	Distance from the forecast position of the storm in the SE quadrant where radii_wspd begin	integer		75	N
SW	Distance from the forecast position of the storm in the SW quadrant where radii_wspd begin	integer		80	N
NW	Distance from the forecast position of the storm in the NW quadrant where radii_wspd begin	integer		80	N
Heading Object - Storm heading information					
storm_dir	Current direction of the storm in degrees	string		340	N
storm_dir_cardinal	Cardinal wind direction	string	N, S,E,W, NNE, NE,ENE,ESE, SE, SSE, SSW, SW, WSW, WNW, NW,NNW, Almost Stationary, Stationary, Drifting , Meandering	NNW	N
storm_spd	Forward speed of the storm	integer		12	Y

JSON Sample

Sample Response
<pre>{ "metadata": { "language": "en-US", "transaction_id": "1465844819313:1669263939", "version": "2", "nautical": "true", "units": "e", "basin": "all", "source": "default", "expire_time_gmt": 1465866420, "status_code": 200 }, "advisoryinfo": [{ "bulletin_id": "11CD8A58FBF14D37ABF8AD926E7714B4", "storm_key": "7EE43DD5A3ED5956652E80BDC0524E8B", </pre>

```
"storm_id": "AL032016",
"storm_number": null,
"storm_name": "Colin",
"alternate_storm_name": null,
"source": "NHC",
"dsgnt_source": true,
"basin": "AL",
"issue_office": "KNHC",
"wmo_id": "WTNT23",
"issue_dt_tm": "2016-06-07T20:19:00Z",
"issue_dt_tm_tz_cd": "Etc/UTC",
"issue_dt_tm_tz_abbrv": "UTC",
"adv_num": "10",
"adv_dt_tm": "2016-06-07T17:00:00-04:00",
"adv_dt_tm_tz_cd": "America/New_York",
"adv_dt_tm_tz_abbrv": "EDT",
"nxt_cmplt_advstry_dt_tm": "2016-06-07T17:00:00-04:00",
"nxt_cmplt_advstry_dt_tm_tz_cd": "America/New_York",
"nxt_cmplt_advstry_dt_tm_tz_abbrv": "EDT",
"final_advisory": true,
"projectedpath": [
{
"fcst_hour": 12,
"fcst_dt_tm": "2016-06-08T02:00:00-04:00",
"fcst_dt_tm_tz_cd": "America/New_York",
"fcst_dt_tm_tz_abbrv": "EDT",
"storm_type_cd": "PT",
"storm_type": "Post-Tropical Cyclone",
"storm_sub_type_cd": null,
"storm_sub_type": null,
"suppressed": false,
"max_sustained_wind": 55,
"wind_gust": 65,
"heading": {
"storm_dir": "66",
"storm_dir_cardinal": "ENE",
"storm_spd": 40
},
"latitude": 39.5,
"latitude_hemisphere": "N",
"longitude": -65.5,
"longitude_hemisphere": "W",
"endpoint_left_lat": 39.96,
"endpoint_left_lon": -65.76,
"endpoint_right_lat": 39.04,
"endpoint_right_lon": -65.24,
"wind_radii": [
{
"radii_wspd": 34,
"NE": 60,
```

```
"SE": 240,
"SW": 180,
"NW": 60
},
{
  "radii_wspd": 50,
  "NE": 0,
  "SE": 100,
  "SW": 0,
  "NW": 0
}
}],
[],
{"process_time_gmt": 1465369967,
"expire_time_gmt": 1465938000
},
{} * Additional Bulletin Object Collapsed For Display Purposes
}]
```