DataPoint API resources

Contents

Overview

All DataPoint resources have a base URL of `http://datapoint.metoffice.gov.uk/public/data/` and must be requested with your API key as a query in the format:

`http://datapoint.metoffice.gov.uk/public/data/`*`resource`*`?key=`*`APIkey`*

For example, to get a three-hourly five-day forecast for Dunkeswel Aerodrome:

`http://datapoint.metoffice.gov.uk/public/data/val/wxfcs/all/xml/3840?res=3hourly?key=01234567-89ab-cdef-0123-456789abcdef`

You will need to register for DataPoint and use your own API key.

Supported *datatype* values:

Data type	Description
`xml`	Extensible Markup Language.
`json`	JavaScript Object Notation.

Both XML and JSON are human readable and parsers available for many languages.

Location-specific data

This includes forecasts for approximately 5,000 sites and observations for approximately 140 sites across the UK. Forecasts are provided for the next five days and observations for the past 24 hours.

Resource	Description	Approx. size (kB)
`val/wxfcs/all/`*`datatype`*`/sitelist`	Returns a list of locations (also known as sites) for which results are available for the daily and three-hourly forecast data feeds. You can use this to find the ID of the site that you are interested in.	400
`val/wxfcs/all/`*`datatype`*`/capabilities`	Returns the time steps available for the daily or three-hourly UK forecast data feed. You can use this data feed to check that the time step you are interested in is available before querying the relevant web service to get the data.	2
`val/wxfcs/all/`*`datatype`*`/`*`locationId`*	Returns a forecast for the next five days including today. Forecast time steps are either daily (separate day and night), or every three-hours. Updated hourly.	4
`val/wxobs/all/`*`datatype`*`/sitelist`	Returns a list of locations (also known as sites) for which results are available for the hourly observations data feed. You can use this to find the ID of the site that you are interested in.	9
`val/wxobs/all/`*`datatype`*`/capabilities`	Returns a summary of available time steps for the UK observations data feed. You can use this data feed to check that the time step you are interested in is available before querying the relevant web service to get the data. Updated hourly.	0.8
`val/wxobs/all/`*`datatype`*`/`*`locationId`*	Returns hourly weather observations for the last 24 hours.	2

Supported *locationId* values for location-specific data:

Location ID	Description
number	A numbered location ID e.g. Dunkeswel Aerodrome = `3840`. The list of location IDs availabe for a datafeed can be fetched using the `sitelist` resource for that datafeed.
`all`	The location `all` can be used to fetch the data for all locations available in a datafeed. This will **significantly increase the size of the returned data**. Consider using the `time` query to restrict the data to a specific time step.

Textual data

Including national and regional UK forecasts for the next five days and a national outlook to out to 15 and 30 days ahead.

Resource	Description	Approx. size (kB)
txt/wxobs/ukextremes/*datatype*/capabilities	Returns when the regional extremes observations data feed was last updated, and the period it covers.	0.1
txt/wxobs/ukextremes/*datatype*/latest	Returns the regional observed extremes of weather across the UK for the day of issue. Updated daily.	9
txt/wxfcs/nationalpark/*datatype*/sitelist	Returns a list of locations the National Park forecast data feed provides data for. You can use this to find the ID of the site that you are interested in.	0.5
txt/wxfcs/nationalpark/*datatype*/capabilities	Returns when the data for each of the National Park forecasts was updated. You can use this to check when the forecasts have updated rather than fetching the National Park forecasts repeatedly.	2
txt/wxfcs/nationalpark/*datatype*/*locationId*	Returns a text forecast for a National Park. Updated twice daily, early morning and early afternoon.	0.8
txt/wxfcs/regionalforecast/*datatype*/sitelist	Returns a list of locations the regional forecast data feed provides data for. You can use this to find the ID of the site that you are interested in.	0.6
txt/wxfcs/regionalforecast/*datatype*/capabilities	Returns when the regional forecast was updated. You can use this to check when the forecasts have updated rather than fetching the regional forecasts repeatedly.	0.1
txt/wxfcs/regionalforecast/*datatype*/*locationId*	Returns regional forecast text. Updated twice daily, AM and PM, normally early morning and early afternoon.	3
txt/wxfcs/mountainarea/*datatype*/sitelist	Returns a list of locations the mountain area forecast data feed provides data for .You can use this to find the ID of the site that you are interested in.	0.3
txt/wxfcs/mountainarea/*datatype*/capabilities	Returns the forecast creation dates, valid from and to dates, and the general risk for each mountain area.	2
txt/wxfcs/mountainarea/*datatype*/*locationId*	Returns a mountain area forecast covering	4

the four day period after its issue date. Updated at least, once a day but may be updated more often.

Supported *locationId* values for textual data:

Location ID	Description
number	A numbered location ID e.g. South West England = 513. The list of location IDs availabe for a datafeed can be fetched using the sitelist resource for that datafeed.
all	The location all can be used to fetch the data for all locations **only in the nationalpark datafeed**.

Stand-alone imagery

Surface pressure analysis and forecast charts.

Resource	Description	Approx. size (kB)
image/wxfcs/surfacepressure/*datatype*/capabilities	Returns when the current surface pressure charts were issued, the time steps available, and the URIs of the surface pressure synoptic analysis and forecast charts in GIF format. Update twice daily.	3

Map overlay imagery

Observation and forecast images suitable for use as overlays on maps. Includes rainfall radar and satellite imagery.

Resource	Description	Approx. size (kB)
layer/wxfcs/all/*datatype*/capabilities	Returns when the forecast layers were issued, time steps available, and the URIs of the layers in PNG format. Update hourly.	3
layer/wxobs/all/*datatype*/capabilities	Returns when the observation layers were issued, time steps available, and the URIs of the layers in PNG format. Updated every 15 minutes.	3

val/wxfcs/all/datatype/sitelist

The 5,000 UK locations forecast site list data feed provides a list of the locations (also known as sites) for which results are available for the 5,000 UK locations three hourly forecast and 5,000 UK locations daily forecast data feeds. You can use this data feed to find details such as the ID of the site that you are interested in finding data for.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/val/wxfcs/all/*datatype*/sitelist

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Parameters

Parameter	Required/optional	Description

`key`	Requried	Your DataPoint API key

Example request

Fetch the list of UK forecast locations in XML.

http://datapoint.metoffice.gov.uk/public/data/val/wxfcs/all/xml/sitelist?key=01234567-89ab-cdef-0123-456789abcdef

Returns approximately 400 kB of XML.

```
  1.  <?xml version="1.0" encoding="ISO-8859-1"?>
  2.  <Locations>
  3.    <Location id="3066" latitude="57.6494" longitude="-3.5606" name="Kinloss"></Location>
  4.    <Location id="3080" latitude="57.077" longitude="-2.836" name="Aboyne"></Location>
  5.    <Location id="3091" latitude="57.206" longitude="-2.202" name="Aberdeen Dyce"></Location>
  6.    <Location id="3134" latitude="55.907" longitude="-4.533"
      name="Glasgow/Bishopton"></Location>
  7.    <Location id="3136" latitude="55.515" longitude="-4.585" name="Prestwick Rnas"></Location>
  8.    <Location id="3144" latitude="56.326" longitude="-3.729" name="Strathallan"></Location>
  9.    <Location id="3162" latitude="55.311" longitude="-3.206" name="Eskdalemuir"></Location>
 10.    <Location id="3212" latitude="54.614" longitude="-3.157" name="Keswick"></Location>

…

5359.    <Location id="354514" latitude="51.4102" longitude="-2.8962" name="Clevedon Beach
      (Beach)"></Location>
5360.    <Location id="354521" latitude="50.8388" longitude="-4.5557" name="Bude - Crooklets
      (Beach)"></Location>
5361.    <Location id="354522" latitude="50.8316" longitude="-4.5546" name="Bude - Summerleaze
      (Beach)"></Location>
5362.    <Location id="354531" latitude="50.5262" longitude="-5.024" name="Treyarnon Bay
      (Beach)"></Location>
5363.    <Location id="354535" latitude="50.416" longitude="-5.0778" name="Newquay - Great Western
      (Beach)"></Location>
5364.    <Location id="354548" latitude="50.0814" longitude="-5.6937" name="Sennen Cove
      (Beach)"></Location>
5365.    <Location id="354551" latitude="50.1281" longitude="-5.501" name="Mounts Bay - Little
      Hogus (Beach)"></Location>
5366.    <Location id="354553" latitude="50.1032" longitude="-5.3903" name="Praa Sands West
      (Beach)"></Location>
5367.  </Locations>
```

Anatomy of responses

- Locations
  - Location

Locations

Field	Type	Description
Location	array of Location	The response contains a single Locations node, which in turn contains a set of Location nodes

Location

Field	Type	Description
id	int	The ID number of the location e.g. '310069'
latitude	float	The latitude of the location in decimal degrees e.g. '50.7179'
longitude	float	The longitude of the location in decimal degrees e.g. '-3.5327'
name	string	The name of the location e.g. 'Exeter'

val/wxfcs/all/datatype/capabilities

The capabilities data feed provides a summary of the timesteps for which results are available for the 5,000 UK locations daily and three hourly forecast data feed. You can use this data feed to check that the timestep you are interested in is available before querying the relevant web service to get the data. In this way you can minimise the number of redundant calls that have to be made.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/val/wxfcs/all/*datatype*/capabilities

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Parameters

Parameter	Required/optional	Description
res	Required	The temporal resolution of the data being requested. Either 3hourly or daily
key	Requried	Your DataPoint API key

Example request

Fetch three-hourly UK forecast capabilities in XML.

http://datapoint.metoffice.gov.uk/public/data/val/wxfcs/all/xml/capabilities?
res=3hourly&key=01234567-89ab-cdef-0123-456789abcdef

Returns approxomately 2 kB of XML.

```
 1.  <?xml version="1.0" encoding="ISO-8859-1"?>
 2.  <Resource dataDate="2012-11-19T14:00:00Z" res="3hourly" type="wxfcs">
 3.    <TimeSteps>
 4.      <TS>2012-11-19T06:00:00Z</TS>
 5.      <TS>2012-11-19T09:00:00Z</TS>
 6.      <TS>2012-11-19T12:00:00Z</TS>
 7.      <TS>2012-11-19T15:00:00Z</TS>
 8.      <TS>2012-11-19T18:00:00Z</TS>
 9.      <TS>2012-11-19T21:00:00Z</TS>
10.      <TS>2012-11-20T00:00:00Z</TS>
11.      <TS>2012-11-20T03:00:00Z</TS>
12.      <TS>2012-11-20T06:00:00Z</TS>
13.      <TS>2012-11-20T09:00:00Z</TS>
14.      <TS>2012-11-20T12:00:00Z</TS>
15.      <TS>2012-11-20T15:00:00Z</TS>
16.      <TS>2012-11-20T18:00:00Z</TS>
17.      <TS>2012-11-20T21:00:00Z</TS>
18.      <TS>2012-11-21T00:00:00Z</TS>
19.      <TS>2012-11-21T03:00:00Z</TS>
20.      <TS>2012-11-21T06:00:00Z</TS>
21.      <TS>2012-11-21T09:00:00Z</TS>
22.      <TS>2012-11-21T12:00:00Z</TS>
23.      <TS>2012-11-21T15:00:00Z</TS>
24.      <TS>2012-11-21T18:00:00Z</TS>
25.      <TS>2012-11-21T21:00:00Z</TS>
26.      <TS>2012-11-22T00:00:00Z</TS>
27.      <TS>2012-11-22T03:00:00Z</TS>
28.      <TS>2012-11-22T06:00:00Z</TS>
29.      <TS>2012-11-22T09:00:00Z</TS>
30.      <TS>2012-11-22T12:00:00Z</TS>
31.      <TS>2012-11-22T15:00:00Z</TS>
```

```
32.        <TS>2012-11-22T18:00:00Z</TS>
33.        <TS>2012-11-22T21:00:00Z</TS>
34.        <TS>2012-11-23T00:00:00Z</TS>
35.        <TS>2012-11-23T03:00:00Z</TS>
36.        <TS>2012-11-23T06:00:00Z</TS>
37.        <TS>2012-11-23T09:00:00Z</TS>
38.        <TS>2012-11-23T12:00:00Z</TS>
39.        <TS>2012-11-23T15:00:00Z</TS>
40.        <TS>2012-11-23T18:00:00Z</TS>
41.        <TS>2012-11-23T21:00:00Z</TS>
42.        <TS>2012-11-24T00:00:00Z</TS>
43.        <TS>2012-11-24T03:00:00Z</TS>
44.        <TS>2012-11-24T06:00:00Z</TS>
45.        <TS>2012-11-24T09:00:00Z</TS>
46.        <TS>2012-11-24T12:00:00Z</TS>
47.        <TS>2012-11-24T15:00:00Z</TS>
48.        <TS>2012-11-24T18:00:00Z</TS>
49.        <TS>2012-11-24T21:00:00Z</TS>
50.     </TimeSteps>
51.  </Resource>
```

Anatomy of responses

- Resource
  - TimeSteps
    - TS

Resource

Field	Type	Description
dataData	ISO 8601 date	The date and time at which the data was last updated, expressed according to the ISO 8601 combined date and time convention. e.g. '2012-11-21T15:00:00Z'
res	string	The temporal resolution of the web service for which the capabilities have been returned. This is set to the temporal resolution specified in the query. e.g. 'daily', '3hourly' or 'hourly'
type	string	The resource type of the web service for which the capabilities have been returned. e.g. 'wxfcs' or 'wxobs'
TimeSteps	TimeSteps object	A single TimeSteps object, which contains an array of TS values.

TimeSteps

Field	Type	Description
TS	array of ISO 8601 date	The value of each TS object (or each element in the TS array in the JSON representation) provides a description of a single available timestep, expressed according to the ISO 8601 combined date and time convention. e.g. '2012-11-21T06:00:00Z'

val/wxfcs/all/datatype/locationId

This provides access to daily and three hourly forecast data from the Met Office for each of the roughly 5,000 sites for which the Met Office provides data. The forecast data is provided for time steps that are three hours apart, or daily (day and night), starting with the time at which the forecast was last run, and ending approximately five days later (meaning that approximately 10 or 40 forecast timesteps are available for each site). The data provided by the web service is updated on an hourly basis, and at any given point in time the exact set of timesteps that are available can be obtained using the capabilities web service. For a full list of the 5,000 sites, call the 5,000 UK locations site list data feed.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/val/wxfcs/all/*datatype*/*locationId*

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Supported *locationId* values:

Location ID	Description
number	A numbered location ID e.g. Dunkeswel Aerodrome = 3840. The list of location IDs availabe for a datafeed can be fetched using the sitelist resource for that datafeed.
all	The location all can be used to fetch the data for all locations available in a datafeed. This will **significantly increase the size of the returned data**. Consider using the time query to restrict the data to a specific time step.

Parameters

Parameter	Required/optional	Description
time	Optional	Returns the forecast for only a single time step rather than all available time steps. The time step must be one of the available time steps reported by the capabilities resource and expressed according to the ISO 8601 combined date and time convention. The time can be abbreviated e.g 2012-11-19T15:00:00Z is identical to 2012-11-19T15Z.
res	Required	The temporal resolution of the data being requested. Either 3hourly or daily.
key	Requried	Your DataPoint API key.

Example request

Fetch the three-hourly forecast for Exeter.

http://datapoint.metoffice.gov.uk/public/data/val/wxfcs/all/xml/310069?res=3hourly&key=01234567-89ab-cdef-0123-456789abcdef

Returns approxomately 4 kB of XML.

```
 1. <?xml version="1.0" encoding="ISO-8859-1"?>
 2. <SiteRep>
 3.   <Wx>
 4.     <Param name="F" units="C">Feels Like Temperature</Param>
 5.     <Param name="G" units="mph">Wind Gust</Param>
 6.     <Param name="H" units="%">Screen Relative Humidity</Param>
 7.     <Param name="T" units="C">Temperature</Param>
 8.     <Param name="V" units="">Visibility</Param>
 9.     <Param name="D" units="compass">Wind Direction</Param>
10.     <Param name="S" units="mph">Wind Speed</Param>
11.     <Param name="U" units="">Max UV Index</Param>
12.     <Param name="W" units="">Weather Type</Param>
13.     <Param name="Pp" units="%">Precipitation Probability</Param>
14.   </Wx>
15.   <DV dataDate="2012-11-19T14:00:00Z" type="Forecast">
16.     <Location i="310069" lat="50.7179" lon="-3.5327" name="EXETER" country="ENGLAND"
    continent="EUROPE">
17.       <Period type="Day" value="2012-11-19Z">
18.         <Rep D="SSE" F="8" G="29" H="80" Pp="16" S="13" T="11" V="VG" W="7" U="1">540</Rep>
19.         <Rep D="S" F="9" G="34" H="88" Pp="50" S="16" T="12" V="VG" W="10" U="1">720</Rep>
20.         <Rep D="S" F="9" G="29" H="94" Pp="51" S="11" T="12" V="GO" W="10" U="1">900</Rep>
21.         <Rep D="S" F="10" G="25" H="96" Pp="52" S="9" T="12" V="GO" W="12" U="0">1080</Rep>
22.         <Rep D="SSW" F="11" G="20" H="97" Pp="14" S="7" T="12" V="GO" W="7"
    U="0">1260</Rep>
23.       </Period>
```

```
24.          <Period type="Day" value="2012-11-20Z">
25.            <Rep D="SSE" F="11" G="16" H="95" Pp="16" S="7" T="12" V="VG" W="7" U="0">0</Rep>
26.            <Rep D="S" F="11" G="31" H="96" Pp="96" S="13" T="13" V="MO" W="15" U="0">180</Rep>
27.            <Rep D="S" F="10" G="43" H="92" Pp="97" S="18" T="14" V="GO" W="15" U="0">360</Rep>
28.            <Rep D="S" F="10" G="45" H="92" Pp="94" S="18" T="13" V="MO" W="15" U="1">540</Rep>
29.            <Rep D="SSW" F="12" G="29" H="93" Pp="65" S="11" T="14" V="GO" W="12"
      U="1">720</Rep>
30.            <Rep D="SSW" F="12" G="18" H="90" Pp="20" S="7" T="13" V="VG" W="7" U="1">900</Rep>
31.            <Rep D="SSW" F="11" G="11" H="90" Pp="15" S="4" T="12" V="VG" W="7"
      U="0">1080</Rep>
32.            <Rep D="SW" F="10" G="13" H="88" Pp="14" S="7" T="11" V="VG" W="7" U="0">1260</Rep>
33.          </Period>
34.          <Period type="Day" value="2012-11-21Z">
35.            <Rep D="S" F="10" G="9" H="91" Pp="11" S="4" T="11" V="VG" W="7" U="0">0</Rep>
36.            <Rep D="SSW" F="10" G="9" H="91" Pp="10" S="4" T="10" V="VG" W="7" U="0">180</Rep>
37.            <Rep D="SSW" F="9" G="7" H="87" Pp="6" S="4" T="9" V="VG" W="2" U="0">360</Rep>
38.            <Rep D="WSW" F="8" G="7" H="83" Pp="4" S="4" T="9" V="VG" W="3" U="1">540</Rep>
39.            <Rep D="SW" F="10" G="18" H="71" Pp="2" S="9" T="12" V="EX" W="1" U="1">720</Rep>
40.            <Rep D="SSW" F="10" G="13" H="72" Pp="1" S="7" T="11" V="EX" W="1" U="1">900</Rep>
41.            <Rep D="S" F="8" G="18" H="80" Pp="2" S="9" T="10" V="EX" W="2" U="0">1080</Rep>
42.            <Rep D="S" F="9" G="22" H="84" Pp="2" S="11" T="11" V="EX" W="2" U="0">1260</Rep>
43.          </Period>
44.          <Period type="Day" value="2012-11-22Z">
45.            <Rep D="S" F="9" G="25" H="86" Pp="2" S="13" T="11" V="VG" W="2" U="0">0</Rep>
46.            <Rep D="S" F="9" G="27" H="86" Pp="4" S="16" T="12" V="VG" W="2" U="0">180</Rep>
47.            <Rep D="S" F="8" G="31" H="86" Pp="4" S="18" T="12" V="VG" W="0" U="0">360</Rep>
48.            <Rep D="S" F="8" G="36" H="82" Pp="9" S="20" T="12" V="VG" W="3" U="1">540</Rep>
49.            <Rep D="S" F="9" G="40" H="74" Pp="9" S="22" T="13" V="VG" W="3" U="1">720</Rep>
50.            <Rep D="S" F="8" G="38" H="75" Pp="20" S="20" T="12" V="VG" W="3" U="1">900</Rep>
51.            <Rep D="S" F="8" G="36" H="85" Pp="58" S="20" T="11" V="GO" W="12" U="0">1080</Rep>
52.            <Rep D="S" F="7" G="18" H="88" Pp="61" S="11" T="9" V="GO" W="12" U="0">1260</Rep>
53.          </Period>
54.          <Period type="Day" value="2012-11-23Z">
55.            <Rep D="SSW" F="7" G="16" H="91" Pp="61" S="11" T="9" V="GO" W="12" U="0">0</Rep>
56.            <Rep D="SSW" F="6" G="16" H="93" Pp="55" S="11" T="8" V="GO" W="12" U="0">180</Rep>
57.            <Rep D="SSW" F="5" G="13" H="93" Pp="39" S="9" T="7" V="GO" W="9" U="0">360</Rep>
58.            <Rep D="WSW" F="6" G="11" H="89" Pp="18" S="7" T="8" V="VG" W="1" U="1">540</Rep>
59.            <Rep D="NW" F="8" G="16" H="82" Pp="11" S="9" T="10" V="VG" W="3" U="1">720</Rep>
60.            <Rep D="WNW" F="7" G="13" H="81" Pp="16" S="9" T="9" V="VG" W="3" U="1">900</Rep>
61.            <Rep D="WNW" F="4" G="11" H="89" Pp="15" S="9" T="7" V="VG" W="0" U="0">1080</Rep>
62.            <Rep D="WNW" F="3" G="11" H="91" Pp="15" S="9" T="6" V="VG" W="0" U="0">1260</Rep>
63.          </Period>
64.        </Location>
65.      </DV>
66.  </SiteRep>
```

Anatomy of responses

- SiteRep
  - Wx
    - Param
  - DV
    - Location
      - Period
        - Rep

SiteRep

The SiteRep object comprises a single Wx object and a single DV object.

Field	Type	Description
Wx	Wx Object	The Wx object comprises a number of Parm objects
DV	DV Object	The DV object comprises a set of Location objects.

Wx

Field	Type	Description
Param	Array of Param	A Param object contains the definition of one of the attributes in a single forecast (Rep) object

Param

Field	Type	Description
name	string	The attribute name in the Rep object. e.g. 'T'
units	string	The unit in which the attribute value is represented. e.g. 'C'
$	string	A textual description of what the corresponding attribute represents in the corresponding Rep object. e.g. 'Temperature'

DV

Field	Type	Description
dataData	ISO 8601 date	The date and time at which the forecast was run, expressed according to the ISO 8601 combined date and time convention e.g. '2012-11-21T15:00:00Z'
type	string	The type of data that the web service returns. e.g. 'Forecast' or 'Obs'.
Location	Location object	A Location object comprises a set of Period objects

Location

Field	Type	Description
i	int	The ID number of the location e.g. '310069'
lat	float	The latitude of the location in decimal degrees e.g. '50.7179'
lon	float	The longitude of the location in decimal degrees e.g. '-3.5327'
name	string	The name of the location e.g. 'EXETER'
country	string	The country of the location e.g. 'ENGLAND'
continent	string	The continent of the location e.g.'EUROPE'
Period	array of Period	A Period object comprises a set of Rep objects

Period

Field	Type	Description
type	string	'Day'
value	ISO 8601 date	'2012-11-21Z'
Rep	array of Rep	A Rep object contains a single forecast

Rep

Field	Type	Description
U	int	The strength of the sun's ultraviolet (UV) radiation is expressed as a 'Solar UV Index', a system developed by the World Health Organization. These Met Office forecasts include the effects of: • the position of the sun in the sky; • forecast cloud cover; • ozone amounts in the stratosphere. The solar index does not exceed 8 in the UK (8 is rare; 7 may occur on exceptional days, mostly in the two weeks around the summer solstice). Indices of 9 and 10 are common in the Mediterranean area.

The UV Index can take the following values:

1-2	Low exposure. No protection required. You can safely stay outside
3-5	Moderate exposure. Seek shade during midday hours, cover up and wear sunscreen
6-7	High exposure. Seek shade during midday hours, cover up and wear sunscreen
8-10	Very high. Avoid being outside during midday hours. Shirt, sunscreen and hat are essential
11 or over	Extreme. Avoid being outside during midday hours. Shirt, sunscreen and hat essential.

W	int	Significant weather as a code:

NA	Not available
0	Clear night
1	Sunny day
2	Partly cloudy (night)
3	Partly cloudy (day)
4	Not used
5	Mist
6	Fog
7	Cloudy
8	Overcast
9	Light rain shower (night)
10	Light rain shower (day)
11	Drizzle
12	Light rain
13	Heavy rain shower (night)
14	Heavy rain shower (day)
15	Heavy rain
16	Sleet shower (night)
17	Sleet shower (day)
18	Sleet
19	Hail shower (night)
20	Hail shower (day)
21	Hail
22	Light snow shower (night)
23	Light snow shower (day)
24	Light snow
25	Heavy snow shower (night)
26	Heavy snow shower (day)
27	Heavy snow
28	Thunder shower (night)
29	Thunder shower (day)
30	Thunder

V	int or string	Visibility in metres or as a code:	
		UN	Unknown
		VP	Very poor - Less than 1 km
		PO	Poor - Between 1-4 km
		MO	Moderate - Between 4-10 km
		GO	Good - Between 10-20 km
		VG	Very good - Between 20-40 km
		EX	Excellent - More than 40 km
T	float or int	Screen temperature in degrees Celsius (°C)	
S	float or int	Wind speed in miles per hour (mph)	
P	float or int	Mean sea level pressure in hectopascals (hPa)	
Pp	float or int	This gives the Precipitation Probability as a percentage (%)	
H	float or int	Screen relative humidity in percent (%)	
G	float or int	Wind gust in miles per hour (mph)	
F	float or int	Feels like temperature in degrees Celsius (°C)	
D	string	Wind direction 16-point compass direction e.g. S, SSW, SW, etc.	
$	int or string	The number of minutes after midnight UTC on the day represented by the Period object in which the Rep object is found. For the daily forecasts this will instead be 'Day' or 'Night'.	

txt/wxobs/ukextremes/datatype/capabilities

The regional extremes observation capabilities web service indicates when the regional extremes observations data feed was last updated, and the period it covers.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxobs/ukextremes/*datatype*/capabilities

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Parameters

Parameter	Required/optional	Description
key	Requried	Your DataPoint API key

Example request

Fetch UK extremes capabilities in XML.

http://datapoint.metoffice.gov.uk/public/data/txt/wxobs/ukextremes/xml/capabilities?key=01234567-

89ab-cdef-0123-456789abcdef

Returns approxomately 100 B of XML.

```
1. <?xml version="1.0" encoding="ISO-8859-1"?>
2. <UkExtremes extremeDate="2012-11-22" issuedAt="2012-11-22T23:01:58Z"></UkExtremes>
```

Anatomy of responses

- UkExtremes

UkExtremes

A UkExtremes object defines the capabilities for the regional extremes observations data feeds.

Field	Type	Description
extremeDate	ISO 8601 date	The date of the observation.
issuedAt	ISO 8601 date	The date at which the observation was issued

txt/wxobs/ukextremes/datatype/latest

This provides access to the observed extremes of weather across the UK for the day of issue. The data provided by the web service is updated on a daily basis.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxobs/ukextremes/*datatype*/latest

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Parameters

Parameter	Required/optional	Description
key	Requried	Your DataPoint API key

Example request

Fetch UK extremes capabilities in XML.

http://datapoint.metoffice.gov.uk/public/data/txt/wxobs/ukextremes/xml/latest?key=01234567-89ab-cdef-0123-456789abcdef

Returns approxomately 9 kB of XML.

```
1. <?xml version="1.0" encoding="ISO-8859-1"?>
2. <UkExtremes extremeDate="2012-11-22" issuedAt="2012-11-22T23:01:58Z">
3.   <Regions>
4.     <Region id="sw" name="South West England">
5.       <Extremes>
6.         <Extreme locId="99190" locationName="Bude" type="HMAXT" uom="degC">14.3</Extreme>
7.         <Extreme locId="99094" locationName="Okehampton" type="LMAXT"
   uom="degC">10.0</Extreme>
8.         <Extreme locId="03740" locationName="Lyneham" type="LMINT" uom="degC">4.4</Extreme>
9.         <Extreme locId="99094" locationName="Okehampton" type="HRAIN"
   uom="mm">35.2</Extreme>
```

```
10.          <Extreme locId="03862" locationName="Hurn" type="HSUN" uom="hours">0.8</Extreme>
11.       </Extremes>
12.      </Region>
13.      <Region id="uk" name="UK">
14.        <Extremes>
15.          <Extreme locId="03784" locationName="Gravesend" type="HMAXT"
       uom="degC">14.4</Extreme>
16.          <Extreme locId="99175" locationName="Killylane" type="LMAXT"
       uom="degC">6.3</Extreme>
17.          <Extreme locId="03171" locationName="Leuchars" type="LMINT" uom="degC">-
       0.5</Extreme>
18.          <Extreme locId="03225" locationName="Shap" type="HRAIN" uom="mm">44.4</Extreme>
19.          <Extreme locId="03882" locationName="Herstmonceux" type="HSUN"
       uom="hours">4.1</Extreme>
20.        </Extremes>
21.      </Region>

…

148.      <Region id="yh" name="Yorkshire &amp; Humber">
149.        <Extremes>
150.          <Extreme locId="03257" locationName="Leeming" type="HMAXT" uom="degC">13.6</Extreme>
151.          <Extreme locId="03281" locationName="Fylingdales" type="LMAXT"
       uom="degC">10.6</Extreme>
152.          <Extreme locId="03265" locationName="Topcliffe" type="LMINT"
       uom="degC">0.9</Extreme>
153.          <Extreme locId="99167" locationName="Bainbridge" type="HRAIN"
       uom="mm">15.2</Extreme>
154.          <Extreme locId="03382" locationName="Leconfield" type="HSUN"
       uom="hours">1.1</Extreme>
155.        </Extremes>
156.      </Region>
157.    </Regions>
158. </UkExtremes>
```

Anatomy of responses

- UkExtremes
  - Regions
    - Region
      - Extremes
        - Extreme

UkExtremes

Field	Type	Description
extremeDate	ISO 8601 date	The date of the observation.
issuedAt	ISO 8601 date	The date at which the observation was issued
Regions	Regions object	

Regions

Field	Type	Description
Region	Array of Region	

Region

Field	Type	Description
id	string	The short name of the region
name	string	The full name of the region
Extremes	Extremes Object	

Extremes

Field	Type	Description
Extreme	Array of Extreme	

Extreme

Field	Type	Description
locId	string	The location ID of the location where the extreme was observed. The location ID may not be listed in the 5,000 locations resource.
locationName	string	The full name of the location where the extreme was observed.
type	string	The type of the extreme. For example 'HMAXT' would represent the highest maximum temperature, and 'LMINT' would represent the lowest minimum temperature.
uom	string	The unit of measurement for the extreme
$	float	The value of the observed extreme, in units specified in the uom attribute.

txt/wxfcs/nationalpark/datatype/sitelist

The national park forecast site list data feed provides a list of the locations (also known as sites) for which results are available for the national park forecast data feed. You can use this data feed to find details such as the ID of the site that you are interested in finding data for.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/nationalpark/*datatype*/sitelist

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Parameters

Parameter	Required/optional	Description
key	Requried	Your DataPoint API key

Example request

Fetch the list of national park regions in XML.

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/nationalpark/xml/sitelist?key=01234567-89ab-cdef-0123-456789abcdef

Returns approxomately 500 B of XML.

```
 1.  <?xml version="1.0" encoding="UTF-8"?>
 2.  <Locations>
 3.    <Location id="600" name="he"></Location>
 4.    <Location id="601" name="gr"></Location>
 5.    <Location id="602" name="st"></Location>
 6.    <Location id="603" name="ta"></Location>
 7.    <Location id="604" name="ni"></Location>
 8.    <Location id="605" name="nw"></Location>
 9.    <Location id="606" name="ne"></Location>
10.    <Location id="607" name="yh"></Location>
11.    <Location id="608" name="wm"></Location>
12.    <Location id="609" name="em"></Location>
13.    <Location id="610" name="ee"></Location>
```

```
14.    <Location id="611" name="sw"></Location>
15.    <Location id="612" name="se"></Location>
16.    <Location id="613" name="wl"></Location>
17. </Locations>
```

Anatomy of responses

- Locations
    - Location

Locations

Field	Type	Description
Location	array of Location	The response contains a single Locations node, which in turn contains a set of Location nodes.

Location

Field	Type	Description
id	int	The ID number of the location e.g. '600'
name	string	The short name of the location e.g. 'he'

txt/wxfcs/nationalpark/datatype/capabilities

The national park forecast capabilities data feed provides a summary of the results that are available from the national park forecasts data feed, specifying the national parks for which data are available, and the time when the forecasts were issued.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/nationalpark/*datatype*/capabilities

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Parameters

Parameter	Required/optional	Description
key	Requried	Your DataPoint API key

Example request

Fetch the capabilities for the national park forecasts in XML.

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/nationalpark/xml/capabilities?key=01234567-89ab-cdef-0123-456789abcdef

Returns approximately 2 kB of XML.

```
1. <?xml version="1.0" encoding="ISO-8859-1"?>
2. <NationalParkForecasts>
3.   <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T15:51:03" region="yh"
   regionName="North York Moors National Park"></NationalParkForecast>
4.   <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:30:31" region="wl"
   regionName="Pembrokeshire Coast National Park"></NationalParkForecast>
5.   <NationalParkForecast IssueAt="04:00" IssueTime="2012-11-23T05:49:14" region="wm"
   regionName="Peak District National Park"></NationalParkForecast>
```

```
6.    <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:36:04" region="he"
   regionName="Cairngorms National Park"></NationalParkForecast>
7.    <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T15:51:03" region="se"
   regionName="New Forest National Park"></NationalParkForecast>
8.    <NationalParkForecast IssueAt="04:00" IssueTime="2012-11-23T05:49:14" region="nw"
   regionName="Peak District National Park"></NationalParkForecast>
9.    <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T15:51:03" region="ee"
   regionName="Norfolk Broads"></NationalParkForecast>
10.   <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T15:51:03" region="ne"
   regionName="Northumberland National Park"></NationalParkForecast>
11.   <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:36:04" region="ta"
   regionName="Loch Lomond and The Trossachs National Park"></NationalParkForecast>
12.   <NationalParkForecast IssueAt="04:00" IssueTime="2012-11-23T05:49:14" region="em"
   regionName="Peak District National Park"></NationalParkForecast>
13.   <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:36:04" region="ni"
   regionName="Mourne National Park"></NationalParkForecast>
14.   <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:36:04" region="st"
   regionName="Loch Lomond and The Trossachs National Park"></NationalParkForecast>
15.   <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:36:04" region="gr"
   regionName="Cairngorms National Park"></NationalParkForecast>
16.   <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:30:31" region="sw"
   regionName="Dartmoor National Park"></NationalParkForecast>
17. </NationalParkForecasts>
```

Anatomy of responses

- NationalParkForecasts
    - NationalParkForecast

NationalParkForecasts

Field	Type	Description
NationalParkForecast	array of NationalParkForecast	

NationalParkForecast

Field	Type	Description
IssueAt	24 hour time	The official time of issue for the forecast e.g. '16:00:00'.
IssueTime	ISO 8601 date	The time at which the forecast was actually issued.
region	string	The short name of the region e.g. 'sw'
regionName	string	The full name of the region e.g. 'Dartmoor National Park'.

txt/wxfcs/nationalpark/datatype/locationId

This provides access to national park forecasts. The data provided is generally updated twice daily, early morning and early afternoon.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/nationalpark/*datatype*/*locationId*

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Supported *locationId* values:

Location ID	Description

number	A numbered location ID e.g. South West England = `611`. The list of location IDs availabe for a datafeed can be fetched using the `sitelist` resource for that datafeed.
`all`	The location `all` can be used to fetch the data for all locations available in a datafeed. This will **significantly increase the size of the returned data**.

Parameters

Parameter	Required/optional	Description
`key`	Requried	Your DataPoint API key

Example request

Fetch the national park forecasts for south west England in XML.

`http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/nationalpark/xml/611?key=01234567-89ab-cdef-0123-456789abcdef`

Returns approxomately 800 B of XML.

```
 1.  <?xml version="1.0" encoding="ISO-8859-1"?>
 2.  <NationalParkForecasts>
 3.    <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:30:31" Issuer="Exeter"
       region="sw" regionName="Dartmoor National Park" type="Afternoon">
 4.      <Section type="Tomorrow">
 5.        <Title>Saturday:</Title>
 6.        <para>Rain, heavy at times throughout much of the day, accompanied by a strong wind
       perhaps reaching gale force at times.</para>
 7.      </Section>
 8.    </NationalParkForecast>
 9.    <NationalParkForecast IssueAt="16:00:00" IssueTime="2012-11-23T14:30:31" Issuer="Exeter"
       region="sw" regionName="Exmoor National Park" type="Afternoon">
10.      <Section type="Tomorrow">
11.        <Title>Saturday:</Title>
12.        <para>Dry, bright start but rain, heavy at times moving across the park during the
       day. Windy with gales in places.</para>
13.      </Section>
14.    </NationalParkForecast>
15.    <NationalParkForecast IssueAt="04:00:00" IssueTime="2012-11-23T03:31:20" Issuer="Exeter"
       region="sw" regionName="Dartmoor National Park" type="Morning">
16.      <Section type="Today">
17.        <Title>Today:</Title>
18.        <para>A largely dry day with sunny spells and light winds. There is may be a few
       isolated showers.</para>
19.      </Section>
20.    </NationalParkForecast>
21.    <NationalParkForecast IssueAt="04:00:00" IssueTime="2012-11-23T03:31:20" Issuer="Exeter"
       region="sw" regionName="Exmoor National Park" type="Morning">
22.      <Section type="Today">
23.        <Title>Today:</Title>
24.        <para>Mainly dry and bright with sunny spells. Risk of one or two isolated showers,
       particularly in the morning.</para>
25.      </Section>
26.    </NationalParkForecast>
27.  </NationalParkForecasts>
```

Anatomy of responses

- NationalParkForecasts
    - NationalParkForecast
        - Section
            - Title
            - para

NationalParkForecasts

Field	Type	Description
NationalParkForecast	array of NationalParkForecast	

NationalParkForecast

Field	Type	Description
IssueAt	24 hour time	The official time of issue for the forecast e.g. '16:00:00'.
IssueTime	ISO 8601 date	The time at which the forecast was actually issued.
Issuer	sting	The Met Office production unit responsible for the forecast.
region	string	The short name of the region e.g. 'sw'
regionName	string	The full name of the region e.g. 'Dartmoor National Park'.
type	string	The time of day to which the forecast refers
Section	Section object	

Section

Field	Type	Description
type	string	The period of time covered by the forecast.
Title	string	The title of the forecast.
para	string	The content of the forecast.

txt/wxfcs/regionalforecast/datatype/sitelist

The regional forecast site list data feed provides a list of the locations (also known as sites) for which results are available for the regional forecast data feed. You can use this data feed to find details such as the ID of the region that you are interested in finding data for.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/regionalforecast/*datatype*/sitelist

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Parameters

Parameter	Required/optional	Description
key	Requried	Your DataPoint API key

Example request

Fetch the list of UK regional forecast locations in XML.

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/regionalforecast/xml/sitelist?key=01234567-89ab-cdef-0123-456789abcdef

Returns approxomately 600 B of XML.

```
1. <?xml version="1.0" encoding="UTF-8"?>
```

```
 2.  <Locations>
 3.    <Location id="500" name="os"></Location>
 4.    <Location id="501" name="he"></Location>
 5.    <Location id="502" name="gr"></Location>
 6.    <Location id="503" name="st"></Location>
 7.    <Location id="504" name="ta"></Location>
 8.    <Location id="505" name="dg"></Location>
 9.    <Location id="506" name="ni"></Location>
10.    <Location id="507" name="nw"></Location>
11.    <Location id="508" name="ne"></Location>
12.    <Location id="509" name="yh"></Location>
13.    <Location id="510" name="wm"></Location>
14.    <Location id="511" name="em"></Location>
15.    <Location id="512" name="ee"></Location>
16.    <Location id="513" name="sw"></Location>
17.    <Location id="514" name="se"></Location>
18.    <Location id="515" name="uk"></Location>
19.    <Location id="516" name="wl"></Location>
20.  </Locations>
```

Anatomy of responses

- Locations
    - Location

Locations

Field	Type	Description
Location	array of Location	The response contains a single Locations node, which in turn contains a set of Location nodes.

Location

Field	Type	Description
id	int	The ID number of the region e.g. '513'
name	string	The short name of the region e.g. 'sw'

Short name	Full name
os	Orkney and Shetland
he	Highland and Eilean Siar
gr	Grampian
ta	Tayside
st	Strathclyde
dg	Dumfries, Galloway, Lothian
ni	Northern Ireland
yh	Yorkshire and the Humber
ne	Northeast England
em	East Midlands
ee	East of England
se	London and Southeast England
nw	Northwest England
wm	West Midlands
sw	Southwest England
wl	Wales

uk	United Kingdom

txt/wxfcs/regionalforecast/datatype/capabilities

The national park forecast capabilities data feed provides a summary of the results that are available from the national park forecasts data feed, specifying the national parks for which data are available, and the time when the forecasts were issued.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/regionalforecast/*datatype*/capabilities

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Parameters

Parameter	Required/optional	Description
key	Requried	Your DataPoint API key

Example request

Fetch the capabilities for the regional forecasts data feed in XML.

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/regionalforecast/xml/capabilities?
key=01234567-89ab-cdef-0123-456789abcdef

Returns approxomately 100 B of XML.

```
1. <?xml version="1.0" encoding="ISO-8859-1"?>
2. <RegionalFcst xmlns="www.metoffice.gov.uk/xml/metoRegionalFcst" issuedAt="2012-11-
   26T04:00:00"></RegionalFcst>
```

Anatomy of responses

- RegionalFcst

RegionalFcst

Field	Type	Description
issuedAt	ISO 8601 date	the date and time at which the current regional forecast was issued

txt/wxfcs/regionalforecast/datatype/locationId

This provides access to national park forecasts. The data provided is generally updated twice daily, early morning and early afternoon.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/regionalforecast/*datatype*/*locationId*

Supported *datatype* values:

Data type	Description
xml	Extensible Markup Language.
json	JavaScript Object Notation.

Supported *locationId* values:

Location ID	Description
number	A numbered location ID e.g. South West England = 513. The list of location IDs availabe for a datafeed can be fetched using the sitelist resource for that datafeed.

Parameters

Parameter	Required/optional	Description
key	Requried	Your DataPoint API key

Example request

Fetch the regional forecasts for south west England in XML.

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/regionalforecast/xml/611?key=01234567-89ab-cdef-0123-456789abcdef

Returns approxomately 3 kB of XML.

```
1.  <?xml version="1.0" encoding="ISO-8859-1"?>
2.  <RegionalFcst xmlns="www.metoffice.gov.uk/xml/metoRegionalFcst" createdOn="2012-11-
    26T03:32:11" issuedAt="2012-11-26T04:00:00" regionId="sw">
3.    <FcstPeriods>
4.      <Period id="day1to2">
5.        <Paragraph title="Headline:">Rather cloudy with scattered heavy showers.</Paragraph>
6.        <Paragraph title="Today:">Cloudy with scattered heavy showers, some with hail and
    thunder. Rainfall accumulations are expected to be less compared to that of recent days for
    most parts, nevertheless this may exacerbate recent flooding problems. Windy, especially
    around northern and western coasts. Maximum Temperature 10C.</Paragraph>
7.        <Paragraph title="Tonight:">Outbreaks of showery rain continuing through much of the
    night. The rain heavy at times, mainly across western counties. Slowly becoming drier
    towards dawn. Minimum Temperature 5C.</Paragraph>
8.        <Paragraph title="Tuesday:">Any remaining outbreaks of rain soon clearing south to
    leave a much drier and brighter but cooler day for many. A few scattered showers possible,
    mainly in the west. Windy. Maximum Temperature 9C.</Paragraph>
9.      </Period>
10.     <Period id="day3to5">
11.       <Paragraph title="Outlook for Wednesday to Friday:">Breezy, mainly dry with sunny
    spells and just a few scattered showers possible. Turning colder, and as winds ease,
    overnight frosts will become increasingly widespread.</Paragraph>
12.     </Period>
13.     <Period id="day6to15">
14.       <Paragraph title="UK Outlook for Saturday 1 Dec 2012 to Monday 10 Dec 2012:">Wintry
    showers are expected to affect some eastern areas on Saturday with snow on hills, possibly
    to low levels in the north. Elsewhere, largely dry and fine, but cold with the risk of
    frost, icy patches and overnight freezing fog. By Sunday, rain may spread into the far
    west, preceded by snow, mainly over higher ground. There is a lot of uncertainty for the
    remainder of the period but it is likely that northern and eastern areas remain cold with
    wintry showers for some. Elsewhere, it will probably become milder, at least for a time,
    but also more unsettled, with rain and hill snow accompanied by stronger winds. Later in
    the period, colder but drier conditions may become re-established across the UK, with frost
    and icy patches for many.</Paragraph>
15.     </Period>
16.     <Period id="day16to30">
17.       <Paragraph title="UK Outlook for Tuesday 11 Dec 2012 to Tuesday 25 Dec 2012:">As is
    usual, there are uncertainties in the forecast for this period. However, there are signs
    that northerly winds may be quite frequent across the UK. So, on balance, colder than
    average conditions are likely to continue, with a risk of frost and fog, and an increased
    risk of some snow.</Paragraph>
18.     </Period>
19.   </FcstPeriods>
20. </RegionalFcst>
```

Anatomy of responses

- RegionalFcst
    - FcstPeriods
        - Period
            - Paragraph

RegionalFcst

Field	Type	Description
createdOn	ISO 8601 date	The time at which the forecast was actually issued.
issuedAt	ISO 8601 date	The official time of issue for the forecast
regionId	string	The short name of the region
FcstPeriods	FcstPeriods object	

FcstPeriods

Field	Type	Description
Period	array of Period	

Period

Field	Type	Description
id	string	The period of time covered by the forecast. e.g. 'day1to2'
Paragraph	array of Paragraph	The content of the forecast.

Paragraph

Field	Type	Description
title	string	Title for the paragrah of forecast text.
$	string	A paragraph of text of the forecast.

txt/wxfcs/mountainarea/datatype/sitelist

The mountain area forecast site list data feed provides a list of the locations (also known as sites) for which results are available for the mountain area forecast data feed. You can use this data feed to find details such as the ID of the site that you are interested in finding data for.

Resource URL

Example request

```
1.  <?xml version="1.0" encoding="UTF-8"?>
2.  <Locations>
3.    <Location id="100" name="Brecon Beacons"></Location>
4.    <Location id="101" name="East Highland"></Location>
5.    <Location id="102" name="Lake District"></Location>
6.    <Location id="103" name="Peak District"></Location>
7.    <Location id="104" name="Snowdonia"></Location>
8.    <Location id="105" name="West Highland"></Location>
9.    <Location id="106" name="Yorkshire Dales"></Location>
10. </Locations>
```

Anatomy of responses

- Locations

◦ Location

txt/wxfcs/mountainarea/datatype/capabilities

The mountain area forecast capabilities data feed provides a summary of which results are available from the get mountain area forecast by site ID data feed, specifying the creation dates, valid from and to dates, and the general risk for each mountain area.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/mountainarea/datatype/capabilities

Example request

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/mountainarea/xml/capabilities?key=

```
1.  <?xml version="1.0" encoding="ISO-8859-1"?>
2.  <MountainForecastList>
3.    <MountainForecast>
4.      <DataDate>2012-11-27T03:36:01Z</DataDate>
5.      <ValidFrom>2012-11-27T03:00:00Z</ValidFrom>
6.      <ValidTo>2012-12-01T03:00:00Z</ValidTo>
7.      <CreatedDate>2012-11-27T03:37:28Z</CreatedDate>
8.
    <URI>http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/mountainarea/{format}/100</URI>
9.      <Area>Brecon Beacons</Area>
10.     <Risk>Medium</Risk>
11.   </MountainForecast>

…

57.   <MountainForecast>
58.     <DataDate>2012-11-27T04:57:08Z</DataDate>
59.     <ValidFrom>2012-11-27T04:00:00Z</ValidFrom>
60.     <ValidTo>2012-12-01T04:00:00Z</ValidTo>
61.     <CreatedDate>2012-11-27T04:58:58Z</CreatedDate>
62.
    <URI>http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/mountainarea/{format}/106</URI>
63.     <Area>Yorkshire Dales</Area>
64.     <Risk>High</Risk>
65.   </MountainForecast>
66. </MountainForecastList>
```

Anatomy of responses

- MountainForecastList
    ◦ MountainForecast
        ▪ DataDate
        ▪ ValidFrom
        ▪ ValidTo
        ▪ CreatedDate
        ▪ URI
        ▪ Area
        ▪ Risk

MountainForecastList

Field	Type	Description
MountainForecast	array of MountainForecast	

MountainForecast

Field	Type	Description
DataDate	ISO 8601 date	The Issued Date of the forecast.

ValidFrom	ISO 8601 date	The start of the validity period for the forecast.
ValidTo	ISO 8601 date	The end of the validity period for the forecast. Usually four days after the Data Date.
CreatedDate	ISO 8601 date	The time that this bulletin was entered into the system.
URI	String	The URI that will retrieve the actual mountain forecast.
Area	String	The area for the forecast e.g. 'Brecon Beacons'.
Risk	String	The general level of risk in this area e.g. 'Medium' , 'High'.

txt/wxfcs/mountainarea/datatype/locationId

This provides access to mountain area forecasts covering the four day period after their issue date. The data provided by the web service is updated once a day at least, but may be updated more often.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/mountainarea/datatype/locationId

Example request

http://datapoint.metoffice.gov.uk/public/data/txt/wxfcs/mountainarea/xml/102?key=

```
1.  <?xml version="1.0" encoding="ISO-8859-1"?>
2.  <report xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" creating-authority="Met
    Office" creation-time="2012-11-28T03:50:01">
3.    <title>Mountain Forecasts</title>
4.    <location>Lake District</location>
5.    <issue date="2012-11-28" time="0350"></issue>
6.    <ValidFrom>2012-11-28T03:00:00Z</ValidFrom>
7.    <ValidTo>2012-12-02T03:00:00Z</ValidTo>
8.    <Validity>Wednesday</Validity>
9.    <IssuedDate>Wednesday, 28 November 2012</IssuedDate>
10.   <Hazards>
11.     <Hazard no="1">
12.       <Element>Blizzards</Element>
13.       <Risk>No Risk</Risk>
14.       <Comments></Comments>
15.     </Hazard>
16.     <Hazard no="2">
17.       <Element>Heavy snow</Element>
18.       <Risk>No Risk</Risk>
19.       <Comments></Comments>
20.     </Hazard>
21.     <Hazard no="3">
22.       <Element>Storm force winds</Element>
23.       <Risk>No Risk</Risk>
24.       <Comments></Comments>
25.     </Hazard>
26.     <Hazard no="4">
27.       <Element>Gales</Element>
28.       <Risk>No Risk</Risk>
29.       <Comments></Comments>
30.     </Hazard>
31.     <Hazard no="5">
32.       <Element>Severe chill effect</Element>
33.       <Risk>Medium</Risk>
34.       <Comments>Sub-zero temperatures combines with strong winds leading to significant
    wind chill.</Comments>
35.     </Hazard>
36.     <Hazard no="6">
```

```
37.        <Element>Persistent extensive hill fog</Element>
38.        <Risk>No Risk</Risk>
39.        <Comments></Comments>
40.      </Hazard>
41.      <Hazard no="7">
42.        <Element>Thunderstorms</Element>
43.        <Risk>No Risk</Risk>
44.        <Comments></Comments>
45.      </Hazard>
46.      <Hazard no="8">
47.        <Element>Heavy persistent rain</Element>
48.        <Risk>No Risk</Risk>
49.        <Comments></Comments>
50.      </Hazard>
51.      <Hazard no="9">
52.        <Element>Strong sunlight</Element>
53.        <Risk>No Risk</Risk>
54.        <Comments></Comments>
55.      </Hazard>
56.    </Hazards>
57.    <Overview>A sunny but cold day with strong northerly winds over the tops.</Overview>
58.    <Forecast_Day0>
59.      <Weather>A dry and sunny day but feeling cold with low temperatures and strong winds
    causing significant wind-chill. A frosty start on high ground, and remaining frosty in the
    shade through much of the day.</Weather>
60.      <Visibility>Very good visibility affording clear panoramic views of distant
    hills.</Visibility>
61.      <HillFog>Most hills will be cloud free, with just a few isolated patches of hill fog at
    times affecting the highest peaks.</HillFog>
62.      <MaxWindLevel>500m</MaxWindLevel>
63.      <MaxWind>Fresh to strong northerly winds, 35mph gusting 45mph over the more exposed
    areas. Easing slightly to 25-30 mph gusting 40 mph in the afternoon.</MaxWind>
64.      <TempLowLevel>Plus 5 Celsius.</TempLowLevel>
65.      <TempHighLevel>Minus 2 Celsius.</TempHighLevel>
66.      <FreezingLevel>500m falling to around 200m through the afternoon.</FreezingLevel>
67.      <WeatherPPN>
68.        <WxPeriod period="1">
69.          <Period>Dawn to 0900</Period>
70.          <Weather>3</Weather>
71.          <Probability>0%</Probability>
72.          <Ppn_type></Ppn_type>
73.        </WxPeriod>
74.        <WxPeriod period="2">
75.          <Period>0900 to 1200</Period>
76.          <Weather>3</Weather>
77.          <Probability>0%</Probability>
78.          <Ppn_type></Ppn_type>
79.        </WxPeriod>
80.        <WxPeriod period="3">
81.          <Period>1200 to 1500</Period>
82.          <Weather>1</Weather>
83.          <Probability>0%</Probability>
84.          <Ppn_type></Ppn_type>
85.        </WxPeriod>
86.        <WxPeriod period="4">
87.          <Period>1500 to Dusk</Period>
88.          <Weather>1</Weather>
89.          <Probability>0%</Probability>
90.          <Ppn_type></Ppn_type>
91.        </WxPeriod>
92.      </WeatherPPN>
93.    </Forecast_Day0>
94.    <Forecast_Day1>
95.      <Weather>A cold and frosty start will lead to another dry and bright day, with the best
    of the sunshine over the western fells and more in the way of high cloud over the eastern
    fells.</Weather>
96.      <Visibility>Excellent visibility.</Visibility>
97.      <HillFog>Hills are expected to be cloud free throughout the day.</HillFog>
98.      <MaxWindLevel>500m</MaxWindLevel>
```

```
 99.        <MaxWind>Northerly winds 10-15 mph with gusts of 20-25 mph becoming light by
       midday.</MaxWind>
100.        <TempLowLevel>Minus 2 Celsius rising to plus 4 Celsius.</TempLowLevel>
101.        <TempHighLevel>Minus 3 Celsius.</TempHighLevel>
102.        <FreezingLevel>200-300m.</FreezingLevel>
103.      </Forecast_Day1>
104.      <Outlook_Day2>Remaining cold, dry and bright spell continues with many higher paths
       frozen and also patches of hill fog. The winds will be light and variable. Freezing level
       around 200-300m.</Outlook_Day2>
105.      <Outlook_Day3>Cloudy conditions on Saturday with low temperatures and perhaps some snow
       showers. Extensive and persistent hill fog will cause very poor visibility during the
       morning. Winds will strengthen becoming northerly 20-25mph with gusts of 30-35mph adding to
       the chill effect. Freezing level around 200-300m.</Outlook_Day3>
106.      <Outlook_Day4>Similar to previous days, remaining mostly cloudy with some snow showers,
       and light and variable winds. Freezing level 300m rising to 600m.</Outlook_Day4>
107.    </report>
```

Anatomy of responses

- report
    - title
    - location
    - issue
    - ValidFrom
    - ValidTo
    - Validity
    - IssuedDate
    - Hazards
        - Hazard
            - Element
            - Risk
            - Comments
    - Overview
    - Forecast_Day0
        - Weather
        - Visibility
        - HillFog
        - MaxWindLevel
        - MaxWind
        - TempLowLevel
        - TempHighLevel
        - FreezingLevel
        - WeatherPPN
            - WxPeriod
                - Period
                - Weather
                - Probability
                - Ppn_type
    - Forecast_Day1
        - Weather
        - Visibility
        - HillFog
        - MaxWindLevel
        - MaxWind
        - TempLowLevel
        - TempHighLevel
        - FreezingLevel
    - Outlook_Day2
    - Outlook_Day3
    - Outlook_Day4

report

Field	Type	Description
creating-authority	string	This is always the Met Office
creation-time	ISO 8601 date	The creation time of the report

title	string	This is always Mountain Forecasts
location	String	The name of the location to which the report refers
issue	issue Object	A user friendly representation of the issue date
ValidFrom	ISO 8601 date	Tthe start of the validity period
ValidTo	ISO 8601 date	The end of the validity period
Validity	String	A textual representation of the validity period
IssuedDate	String	A textual representation of the issue date
Hazards	Hazards objects	This is a summary of the hazards that may be encountered and the current level of risk presented by each.
Overview	String	An overview of the weather in the relevant area
Forecast_Day0	Forecast_Day0 Object	This is a detailed forecast for day 0.
Forecast_Day1		This is a detailed forecast for day 1.
Outlook_Day2	String	a short paragraph giving the general outlook for day 2
Outlook_Day3	String	a short paragraph giving the general outlook for day 3
Outlook_Day4	String	a short paragraph giving the general outlook for day 4

issue

Field	Type	Description
date	ISO 8601 date	Date of issue
time	24-hour time	Time of issue

Hazards

Field	Type	Description
Hazard	array of Hazard	

Hazard

Field	Type	Description
no	int	The number of the Hazard
Element	String	The type of Hazard
Risk	String	The level of risk
Comments	String	Additional comments

Forecast_Day0

Field	Type	Description
Weather	String	a summary of the weather on day 0
Visibility	String	a summary of the visibility on day 0
HillFog	String	a summary of the hill fog on day 0
MaxWindLevel	String	a description of the maximum wind level on day 0
MaxWind	String	a description of the maximum wind on day 0

TempLowLevel	String		the low level temperature
TempHighLevel	String		the high level temperature
FreezingLevel	String		the freezing level
WeatherPPN	WeatherPPN Object		the weather per period

WeatherPPN

Field	Type	Description
WxPeriod	array of WxPeriod	

WxPeriod

Field	Type	Description
period	int	The number of the period
Period	String	A textual description of the period
Weather	int	A number corresponding to the weather symbol
Probability	String	The precipitation probability
Ppn_type	String	

Forecast_Day1

Field	Type	Description
Weather	String	a summary of the weather on day 1
Visibility	String	a summary of the visibility on day 1
HillFog	String	a summary of the hill fog on day 1
MaxWindLevel	String	a description of the maximum wind level on day 1
MaxWind	String	a description of the maximum wind on day 1
TempLowLevel	String	the low level temperature
TempHighLevel	String	the high level temperature
FreezingLevel	String	the freezing level

image/wxfcs/surfacepressure/datatype/capabilities

The surface pressure chart synoptic analysis and forecast capabilities data feed provides information on when the current surface pressure chart were issued, and also lists the timesteps for which surface pressure are available, and the URIs of the surface pressure synoptic analysis and forecast charts themselves as GIFs.

Resource URL

http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/datatype/capabilities

Example request

http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/xml/capabilities?key=01234567-89ab-cdef-0123-456789abcdef

```
1. <?xml version="1.0" ?>
2. <BWSurfacePressureChartList>
3.   <BWSurfacePressureChart>
4.     <DataDate>2012-11-27T00:00:00Z</DataDate>
5.     <ValidFrom>2012-11-27T00:00:00Z</ValidFrom>
6.     <ValidTo>2012-11-27T00:00:00Z</ValidTo>
```

```
 7.
    <ProductURI>http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/gif?
    timestep=0</ProductURI>
 8.      <DataDateTime>0</DataDateTime>
 9.      <ForecastPeriod>0</ForecastPeriod>
10.    </BWSurfacePressureChart>
11.    <BWSurfacePressureChart>
12.      <DataDate>2012-11-27T00:00:00Z</DataDate>
13.      <ValidFrom>2012-11-27T12:00:00Z</ValidFrom>
14.      <ValidTo>2012-11-27T12:00:00Z</ValidTo>
15.
    <ProductURI>http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/gif?
    timestep=12</ProductURI>
16.      <DataDateTime>0</DataDateTime>
17.      <ForecastPeriod>12</ForecastPeriod>
18.    </BWSurfacePressureChart>
19.    <BWSurfacePressureChart>
20.      <DataDate>2012-11-27T00:00:00Z</DataDate>
21.      <ValidFrom>2012-11-28T00:00:00Z</ValidFrom>
22.      <ValidTo>2012-11-28T00:00:00Z</ValidTo>
23.
    <ProductURI>http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/gif?
    timestep=24</ProductURI>
24.      <DataDateTime>0</DataDateTime>
25.      <ForecastPeriod>24</ForecastPeriod>
26.    </BWSurfacePressureChart>
27.    <BWSurfacePressureChart>
28.      <DataDate>2012-11-27T00:00:00Z</DataDate>
29.      <ValidFrom>2012-11-28T12:00:00Z</ValidFrom>
30.      <ValidTo>2012-11-28T12:00:00Z</ValidTo>
31.
    <ProductURI>http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/gif?
    timestep=36</ProductURI>
32.      <DataDateTime>0</DataDateTime>
33.      <ForecastPeriod>36</ForecastPeriod>
34.    </BWSurfacePressureChart>
35.    <BWSurfacePressureChart>
36.      <DataDate>2012-11-27T00:00:00Z</DataDate>
37.      <ValidFrom>2012-11-29T00:00:00Z</ValidFrom>
38.      <ValidTo>2012-11-29T00:00:00Z</ValidTo>
39.
    <ProductURI>http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/gif?
    timestep=48</ProductURI>
40.      <DataDateTime>0</DataDateTime>
41.      <ForecastPeriod>48</ForecastPeriod>
42.    </BWSurfacePressureChart>
43.    <BWSurfacePressureChart>
44.      <DataDate>2012-11-27T00:00:00Z</DataDate>
45.      <ValidFrom>2012-11-29T12:00:00Z</ValidFrom>
46.      <ValidTo>2012-11-29T12:00:00Z</ValidTo>
47.
    <ProductURI>http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/gif?
    timestep=60</ProductURI>
48.      <DataDateTime>0</DataDateTime>
49.      <ForecastPeriod>60</ForecastPeriod>
50.    </BWSurfacePressureChart>
51.    <BWSurfacePressureChart>
52.      <DataDate>2012-11-27T00:00:00Z</DataDate>
53.      <ValidFrom>2012-11-30T00:00:00Z</ValidFrom>
54.      <ValidTo>2012-11-30T00:00:00Z</ValidTo>
55.
    <ProductURI>http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/gif?
    timestep=72</ProductURI>
56.      <DataDateTime>0</DataDateTime>
57.      <ForecastPeriod>72</ForecastPeriod>
58.    </BWSurfacePressureChart>
59.    <BWSurfacePressureChart>
60.      <DataDate>2012-11-27T00:00:00Z</DataDate>
61.      <ValidFrom>2012-11-30T12:00:00Z</ValidFrom>
```

```
62.        <ValidTo>2012-11-30T12:00:00Z</ValidTo>
63.
      <ProductURI>http://datapoint.metoffice.gov.uk/public/data/image/wxfcs/surfacepressure/gif?
      timestep=84</ProductURI>
64.        <DataDateTime>0</DataDateTime>
65.        <ForecastPeriod>84</ForecastPeriod>
66.    </BWSurfacePressureChart>
67. </BWSurfacePressureChartList>
```

Anatomy of responses

- BWSurfacePressureChartList
    - BWSurfacePressureChart
        - DataDate
        - ValidFrom
        - ValidTo
        - ProductURI
        - DataDateTime
        - ForecastPeriod

BWSurfacePressureChartList

Field	Type	Description
BWSurfacePressureChart	array of BWSurfacePressureChart	

BWSurfacePressureChart

Field	Type	Description
DataDate	ISO 8601 date	the Issued Date of the chart
ValidFrom	ISO 8601 date	the start of the validity period for the forecast
ValidTo	ISO 8601 date	the end of the validity period for the forecast
ProductURI	String	the URI that will retrieve the chart
DataDateTime	Int	the time at which the chart was issued (24 hour time)
ForecastPeriod	Int	the number of hours after the DataDateTime of the start of the validity period of the forecast

layer/wxfcs/all/datatype/capabilities

The forecast layer capabilities feed provides information on when the forecast layers that are currently available were issued, details the timesteps that are available, and lists the URIs at which they can be found. The forecast layer capabilities feed provides information on the available layers for the following products:

- Forecast map layers screen temperature
- Forecast map layers total cloud cover
- Forecast map layers mean sea level pressure
- Forecast map layers precipitation

Resource URL

http://datapoint.metoffice.gov.uk/public/data/layer/wxfcs/all/datatype/capabilities

Example request

http://datapoint.metoffice.gov.uk/public/data/layer/wxfcs/all/xml/capabilities?key=01234567-89ab-cdef-0123-456789abcdef

Anatomy of responses

- Layers
    - BaseUrl
    - Layer
        - Service
            - LayerName
            - ImageFormat
            - Timesteps
                - Timestep

layer/wxobs/all/datatype/capabilities

The observation layer capabilities feed provides information on when the observation layers that are currently available were issued, details the timesteps that are available, and lists the URIs at which they can be found. The observation layer capabilities feed provides information on the available layers for the following products:

- Current weather map layers UK rainfall radar
- Current weather map layers UK total cloud cover
- Current weather map layers UK lightning strikes
- Current weather map layers UK satellite infrared
- Current weather map layers UK satellite visible

Resource URL

Example request

http://datapoint.metoffice.gov.uk/public/data/layer/wxobs/all/xml/capabilities?key=01234567-89ab-cdef-0123-456789abcdef

Anatomy of responses

- Layers
    - BaseUrl
    - Layer
        - Service
            - LayerName
            - ImageFormat
            - Time
                - Time

Layers

Field	Type	Description
type	string	
BaseUrl	BaseUrl Object	
Layer	array of Layer	A Layer object defines a single layer

BaseUrl

Field	Type	Description
forServiceTimeFormat	string	the format in which the timesteps are presented
$	String	the base URL of the observation layer feeds

Layer

Field	Type	Description
displayName	string	the product described by the Layer
Service	Service Object	

Service

Field	Type	Description

name	string	the name of the service that produced the data
LayerName	string	the name of the layer
ImageFormat	string	the format of the layer image
Times	Array of Times	Lists the times for which data is available

Times

Field	Type	Description
Time	ISO 8601 date	A single time for which data is available