

# National Severe Weather Warning Service: Met Office Weather Warnings Style Guide for Developers

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# 1. Introduction

## 1.1 Document purpose

The The Met Office Weather Warnings Style Guide for Developers forms part of the terms and conditions for any organisation wishing to carry Met Office Weather Warnings on a digital platform or channel, including, but not limited to; websites, mobile applications and social media channels with desktop, smart phones, tablet and mobile accessibility.

This document is also included in the terms and conditions of the Met Office Public Weather Media Service (PWMS). Any organisation subscribing to this service will receive the same terms and conditions through the PWMS and will not need to sign separate terms and conditions.

This document explains the following:

- What are Met Office Weather Warnings?
- Guiding Principles for Developers
- Mandatory and optional design requirements including:
  - Attribution
  - Timeliness and Formatting
  - Push Notifications
  - Social Media
  - Educational Material



## 1.2 What are Met Office Weather Warnings?

The National Severe Weather Warning Service (NSWWS), which delivers Met Office Weather Warnings, was established in 1988 as a result of the widespread impacts experienced during the Great Storm of October 1987. Following the introduction of the Civil Contingencies Act (2004) and consultation with emergency responders and members of the public, NSWWS developed to become a warning service based on the impact of the weather rather than a threshold of the weather itself.

Met Office Weather Warnings are exclusive to the Met Office, which is recognised by UK government as the national weather warning service for the UK. We issue weather warnings to warn the public and emergency responders of impacts associated with severe or hazardous weather, which have the potential to cause disruption, damage to infrastructure or a danger to life.



The warning service is designed to allow users to plan and prepare for the event of severe weather impacts and make informed decisions to mitigate the forecast impacts. Met Office Weather Warnings provide consistent and robust severe weather messaging when it matters most.

Met Office Weather Warnings are issued up to seven days ahead for eight different weather types: Rain, Thunderstorm, Wind, Snow, Lightning, Ice, Extreme Heat and Fog. Warnings can be issued for any one of the eight weather types and any combination of two weather types (dual warnings) except the following: Thunderstorm and Lightning; Rain and Thunderstorm; Rain and Lightning.

All warnings are given a colour (Yellow, Amber or Red) depending on a combination of both the impact the weather will have and the likelihood of those impacts occurring.

All warnings appear on the Met Office channels, including the website ([www.metoffice.gov.uk](http://www.metoffice.gov.uk)), mobile app, Met Office social media channels and through third party weather information providers. Warnings are also communicated via electronic and broadcast media. Customers of the Public Weather Media Service have access to warnings through the Met Office Media Services Team and may also receive warnings through the NSWWS API data feed.

## 1.3 Guiding principles for developers

Met Office Weather Warnings are the UK government's officially recognised national weather warning service and, therefore, there are a number of guiding principles that the Met Office expects developers to adhere to when presenting Met Office Weather Warnings. By doing so, we can ensure that warning messages are communicated in a consistent, timely and effective manner.

### The guiding principles are:

- **Public Safety**  
Met Office Weather Warnings are generated on behalf of UK government to minimise the loss of life and damage to property and infrastructure.
- **Authoritative Voice**  
The Met Office is designated by the UK Government to be the official source of weather related warnings, advisories and the associated weather story.
- **Reach**  
Developers and the Met Office should work together in the interests of the general public, seeking to ensure that during periods of impactful weather, the UK population has the best information possible to make decisions on how to protect themselves, their families, property and members of the wider community.

### Key principles behind our terms and conditions, including the Met Office Weather Warnings style guide:

- **Consistency**  
Forecasts must be consistent with warnings and advisories. Consistency of information provided to the public is vital to minimise confusion and drive action to minimise the impacts of severe weather.
- **Exclusive**  
Warnings must be issued without exception or modification. No other warning sources should be used to avoid public confusion.
- **Attribution**  
Met Office Weather Warnings must always be referred to as 'Met Office Weather Warnings', in order to reinforce the 'authoritative voice'.

Developers may highlight or emphasise weather of relevance to the public. If a warning has not been issued then messaging to be used by the developer should not infer a warning has been issued or will be issued around the weather being highlighted.

If you require any support interpreting the following requirements, please seek guidance from your Met Office point of contact or account manager, alternatively you can contact us via email: [enquiries@metoffice.gov.uk](mailto:enquiries@metoffice.gov.uk)

## 2. Mandatory and optional design requirements

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This section details the mandatory and optional requirements to be applied when implementing Met Office Weather Warnings across web and application digital channels.

The Met Office is committed to delivering a warning service that is fit for use and fulfils user requirements. Therefore this Style Guide, including the mandatory and optional requirements, is subject to change. Feedback from organisations displaying Met Office warnings, and their users, is encouraged to improve the communication of warnings. Where the Style Guide terms and conditions prove challenging, Developers are encouraged to discuss these with the Met Office to identify solutions (**See section 3.2 - Timeliness and Formatting Requirements, B6**).




## 2.1 Weather warning parameters

The parameters detailed below should be read alongside the static service information available in Open API (Swagger) format detailing the Met Office Weather Warnings API and data structure.

Parameters are grouped to reflect elements within warnings that can be visualised together, guidance is provided in line where applicable.

### 2.1.1 Date and time

Mandatory requirements for date and time parameters	
<ul style="list-style-type: none"><li>Met Office Weather Warnings must be displayed in UK local time. Additional BST / GMT / UK suffixes are permitted.</li><li>All dates and times conform to ISO6801 and must be converted to UK local time by the consuming application</li></ul>	
Mandatory parameters	Guidance
<i>validFromDate</i>	Example of use on the Met Office website, see below
<i>validToDate</i>	Example of use on the Met Office website, see below
Example of use on the Met Office website	
	
Optional requirements for date and time parameters	
<ul style="list-style-type: none"><li>Where included, optional date and time parameters must still follow mandatory requirements listed above</li></ul>	
Optional parameters	Guidance
<i>issuedDate</i>	The issue time and date of the warning may be included. <b>Note:</b> The modifiedDate and issuedDate will be the same for the first issued version of the warning.
<i>modifiedDate</i>	The modified time and date of the warning may be included <b>Note:</b> The modifiedDate and issuedDate will be the same for the first issued version of the warning.



## 2.1.2 Warning status and severity

### Mandatory requirements for warning status and severity parameters

- All Met Office warnings must clearly show the current status (issued, updated or cancelled) of the warning and the severity.
- All warnings displayed must use the right colour to denote the severity level: Yellow, Amber or Red. Whenever Yellow, Amber or Red colouring is prescribed within this style guide, the following colour palette is recommended:
  - #CC0033: RED
  - #FF9900: AMBER
  - #FFE923: YELLOW

**Note:** Alternative colour palettes may not be used without prior agreement from the Met Office

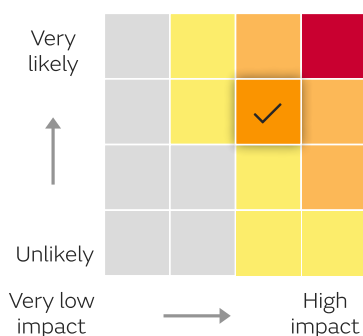
- The warning colour (level) must also be stated in text.

Mandatory parameters	Guidance
<i>warningStatus</i>	Warning status will either be “Issued”, “Cancelled” or “Expired”. An updated warning will have a warning status of “Issued” and the warning version will be greater than or equal to ‘2.0’.  (For warning updates, refer to optional parameters within section 2.1.3 Warning Text Content below)
<i>warningLevel</i>	Refer to mandatory requirements listed above.

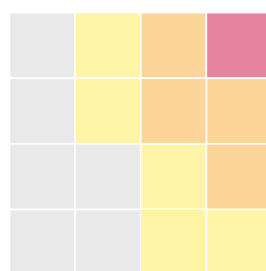
### Optional requirements for warning status and severity parameters

- Where used, the impact and likelihood level of the warning may be included in the form of the optional matrix issued by the Met Office, see below:

**Weather Impact Matrix**



**Simple Base Matrix**

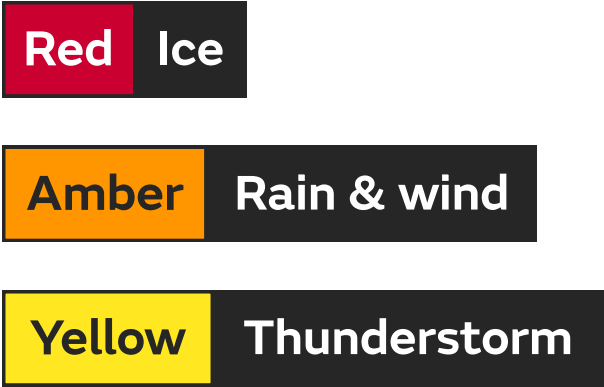


Where the matrix is used, the colour palette (see above) must be consistent with that used to display the warnings and the labels for the matrix must be consistent with Met Office labels

- #DCDCDC: GREY  
(applies to matrix only)

Optional parameters	Guidance
<i>warningImpact</i>	Refer to optional requirements listed above.
<i>warningLikelihood</i>	Refer to optional requirements listed above.

## 2.1.3 Warning text content

Mandatory requirements for warning text content parameters	
<ul style="list-style-type: none"> <li>The following parameters must be included in full to assemble the warning text:               <ul style="list-style-type: none"> <li>Weather type/s (single or dual)</li> <li>Warning headline</li> <li>What to expect</li> </ul> </li> <li>If coloured text is used, it must either match the warning colour or be a neutral colour not associated with warning levels. (E.g. the text describing a yellow warning must not be amber or red).</li> </ul>	
Mandatory parameters	Guidance
<i>weatherType</i>	<ul style="list-style-type: none"> <li>The weather type of all warnings, including overlapping warnings, must be clearly visible when a user first accesses Met Office warnings on a digital channel.</li> <li>Warning weather type must be clearly stated using text.</li> <li>Warning icons are optional when hosting Met Office Weather Warnings, however, prior design agreement with the Met Office is mandatory if used.</li> <li>Dual warning weather types must be listed in the order received; priority: Rain, Thunderstorm, Wind, Snow, Lightning, Ice, Extreme Heat, Fog.</li> </ul> <p>Example of use on the Met Office Website:</p>  <ul style="list-style-type: none"> <li>#CC0033: RED (recommendation: white text)</li> <li>#FF9900: AMBER (recommendation: black text)</li> <li>#FFE923: YELLOW (recommendation: black text)</li> </ul>
<i>warningHeadline</i>	Refer to mandatory requirements listed above.
<i>whatToExpect</i>	Refer to mandatory requirements listed above.

## Optional Requirements for Warning Text Content Parameters

Refer to mandatory warning text content requirements above

**For public channels only**, a link may be provided to the Met Office website to advise the public of actions they can take to protect themselves against severe weather. Note: this parameter is not included within the API.

Where included, the link should be prefixed with the statement **‘What should I do’**

The following text is recommended:


**‘If you would like further advice and guidance on what to do in severe weather, click here’.**

The link must go to:

<https://www.metoffice.gov.uk/weather/warnings-and-advice/seasonal-advice>

Optional Parameters	Guidance
<i>warningFurtherDetails</i>	The warning further details may be included. Where included, it must be headed by the phrase ‘further details’.
<i>warningUpdateDescription</i>	The warning update description details may be included. When warningStatus=ISSUED the warningUpdateDescription will contain a <b>warning update reason</b> (for warning versions > 2.0). When warningStatus=CANCELLED the warningUpdateDescription will contain a <b>warning cancellation reason</b> .

## 2.1.4 Geographical warning area

Mandatory requirements for geographical warning area parameters	
Mandatory parameters	Guidance
<i>affectedAreas</i>	<p>Refer to mandatory requirements listed above. This may be done by displaying the shape co-ordinates on a map and / or the list of unitary authorities affected.</p> <p>Example of use on the Met Office mobile app:</p>  <p>The screenshot shows a dark-themed notification card with a white 'X' icon in the top left corner. The text reads: 'Met Office weather warnings', followed by a horizontal line, 'Weather warnings in place for', 'Ayr, South Ayrshire', another horizontal line, and 'see all UK weather warnings &gt;' in a yellow-green color.</p>

## Optional requirements for geographical warning area parameters

- The geographical warning area must be labelled effectively. Met Office recommends text; however, icons may be used if prior design agreement with the Met Office has been met.

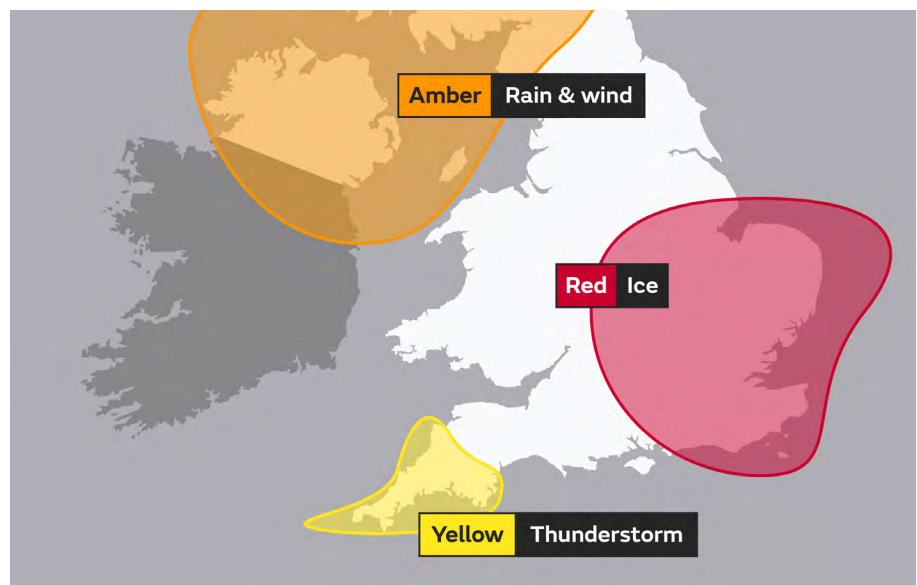
### Optional parameters

### Guidance

#### geometry

The shape data is not explicitly required when hosting Met Office Weather Warning information, if used then the following must be adhered to:

- The warning area must be displayed on a meaningful map (If a map of the UK is used it must include: England, Northern Ireland, Scotland, Wales, and the islands of the UK including: the Orkney Islands, the Shetland Islands and the Isles of Scilly)
- The warning area must clearly show the weather type (Met Office recommends text, however, icons may be used if prior design agreement with the Met Office has been met)
- When maps are zoomed in sufficiently for no warning boundaries to be displayed, the label must be clearly visible when the user zooms out again.
- The warning area must clearly depict warning severity. Each warning area must be colour filled with the appropriate warning colour (Yellow, Amber, Red).
- Met Office Weather Warnings must not be overlaid with any other meteorological information.
- Land areas where Met Office Weather Warnings do not apply must be differentiated from the UK, inclusive of the Isle of Man, the Channel Islands, Republic of Ireland, sea areas or any part of continental Europe. For example a greyed out section on the map could be used.



## 2.1.5 Overlapping warning areas

### Mandatory requirements for overlapping warning areas

#### Guidance

The shape data is not explicitly required when hosting NSWWS information. However, if used then the following must be adhered to in accordance to the guidance set out in Geographical Warning Area above.

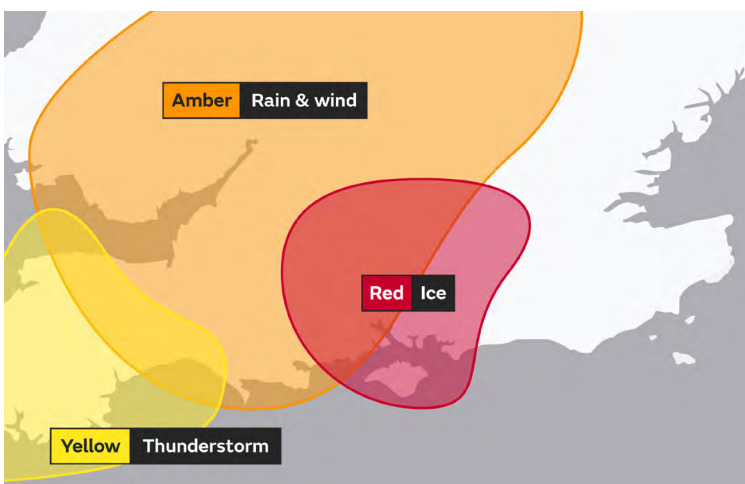
- Warning labels for all overlapped warnings must be visible at all times, displayed using the colour appropriate to the level of warning
  - The Met Office recommends text; however, icons may be used if prior design agreement with the Met Office has been met.
- The weather type of all warnings, including overlapping warnings, must be clearly visible when a user first accesses Met Office warnings on a digital channel.
- Opacity may be used to enable distinction between overlapping warnings
- Where warning areas overlap, the warnings must be displayed in priority order, this must match the order in which warnings are received within the API
  - Results are ordered primarily by Risk (Highest risk first) and then chronologically by validFrom date. The risk order looks primarily at warningLevel (RED > AMBER > YELLOW) then by warningImpact and finally by warningLikelihood

#### Risk priority mapped to Impact Matrix

	9	4	1
	10	5	2
		7	3
		8	6

Note: If warnings are not visually displayed, warnings must be presented in priority order of start time, severity and then warning type.

#### Example of use on the Met Office website



Note: The labels for each warning area must be visible, even if the warnings overlap throughout the area displayed.

# 3. Further mandatory and optional requirements

This section details the mandatory and optional requirements to be considered when implementing Met Office Weather Warnings across digital channels. The list of mandatory (M) and optional (O) requirements may not be exhaustive and is subject to constant review.

## 3.1 Attribution requirements

	Requirement	Priority
3.1a	Correct attribution of Met Office Weather Warnings must be used at all times. It must be clear to users that the warnings are from the Met Office	M
3.1b	Attribution must be provided using either 'Met Office Weather Warnings' and/ or the Met Office logo where any Met Office warnings content is displayed	M
3.1c	Red and Amber warnings must not be displayed with/ alongside any inconsistent visual messaging. When displayed, all reasonable and practicable measures will be taken to ensure that yellow warnings are not displayed with/alongside any inconsistent messaging	M
3.1d	Where the logo is used our brand guidelines must be followed. Details on the Met Office logo guidelines can be requested through <a href="mailto:enquiries@metoffice.gov.uk">enquiries@metoffice.gov.uk</a>	M
3.1e	A link to the Met Office UK warnings overview page may be provided to allow users to access more information related to Met Office Weather Warnings. <a href="https://www.metoffice.gov.uk/public/weather/warnings/">https://www.metoffice.gov.uk/public/weather/warnings/</a>	M

## 3.2 Timeliness and formatting requirements

	Requirement	Priority
3.2a	Unless specifically agreed with the Met Office, the forward propagation of any Met Office Weather Warnings is not acceptable, for example sharing data feeds or warnings with other organisations. However, push notifications <b>(refer to section 3.3, Push Notifications)</b> are permitted.	M
3.2b	All issued, currently valid Met Office Weather Warnings shall be viewable within 5 minutes of the data being available from the Met Office (target 99% success rate of updating within 5 minutes). Where not possible, due to technical difficulties, warnings are to be viewable within 15 minutes of the data being available (target < 1 %).	M
3.2c	All expired Met Office Weather Warnings shall be removed within 5 minutes of the expiry time (target 99%). Where not possible, warnings are to be removed within 15 minutes of the data being available (target < 1 %).	M
3.2d	All updates to Met Office Weather Warnings shall replace the previous issue within 5 minutes of the update being made available (target 99%). Where not possible, warnings are to be viewable within 15 minutes of the data being available (target < 1 %) All updated warnings must be clearly labelled as such.	M
3.2e	All cancelled Met Office Weather Warnings shall be removed within 5 minutes of the warning being cancelled by the Met Office (target 99%). Where not possible, due to technical difficulties, warnings are to be removed from digital channels within 15 minutes of the data being received by the recipient of the Met Office Weather Warnings data feed (target < 1 %).	M
3.2f	Any changes to NSWWS must be taken. This will be conducted through a change management process which will include the opportunity to discuss the proposed changes ahead of implementation.	M
3.2g	Where warnings are displayed in a dedicated warnings page, a warnings overview showing the status of warnings issued (Yellow, Amber, Red) over the seven day period must be provided so that all active Warnings can be seen.	O
3.2h	Distinction to show when there are or aren't warnings in force over the individual seven days is desirable.	O



### 3.3 Push notifications

Push notifications can be used to inform users that warnings have been issued, updated or cancelled.

	Requirement	Priority
3.3a	Push notifications are not explicitly required, however where push notifications are used the following must be adhered to.	O
3.3b	Push notifications must be issued for all amber and red warnings, irrespective of weather type.	M, if push notifications are used.
3.3c	Push notifications may be issued for all yellow warnings. Developers may wish to consider allowing users to select the impact levels, likelihood levels and/or weather types for yellow warnings of interest to them.	O
3.3d	<p>Push notifications must be issued for all updated warnings where there is a significant change to the original warning.</p> <p>A <b>significant</b> change is:</p> <p>Any increase in the likelihood level and/or a change in the impact level when the initial warning is amber, and the change will result in the colour remaining amber or changing to red; Any increase in the likelihood or impact level which turns a yellow warning into an amber or red warning;</p> <p>Any decrease in likelihood or impact level that will turn the warning from red to amber, amber to yellow, or red to yellow;</p> <p>When a warning is cancelled.</p>	M, if push notifications are used.

### 3.4 Social media

	Requirement	Priority
3.4a	Met Office warnings shall not be modified, edited or changed in any way unless requested by the Met Office.	M
3.4b	Weather warning content must be referred to as “Met Office Weather Warning/s”.	M
3.4c	Images of Met Office warnings must be taken from a Met Office source; such as Met Office twitter, Met Office Facebook, Met Office warnings webpage.	M
3.4d	The warning colour (yellow, amber or red) must be stated in any text.	M
3.4e	When sharing Met Office warnings, only forecast warning or active warnings shall be shared. Expired warnings or warnings about to expire shall not be shared.	M
3.4f	A link to the Met Office warnings webpage may be provided to allow users to access more information related to Met Office Weather Warnings. <a href="https://www.metoffice.gov.uk/public/weather/warnings/">https://www.metoffice.gov.uk/public/weather/warnings/</a>	O
3.4g	All warnings must be displayed, although they do not have to be on the same image.	O

### 3.5 Educational material

	Requirement	Priority
3.5a	A link to the Met Office website <a href="https://www.metoffice.gov.uk/weather/guides/warnings">https://www.metoffice.gov.uk/weather/guides/warnings</a> is to be used when there is a need to include educational material to explain Met Office Weather Warnings.	M
3.5b	Where a developer wishes to provide educational material to explain Met Office Weather Warnings, the proposed content must be signed off by the Met Office.	M

