

## Live Weather Overview and Locator

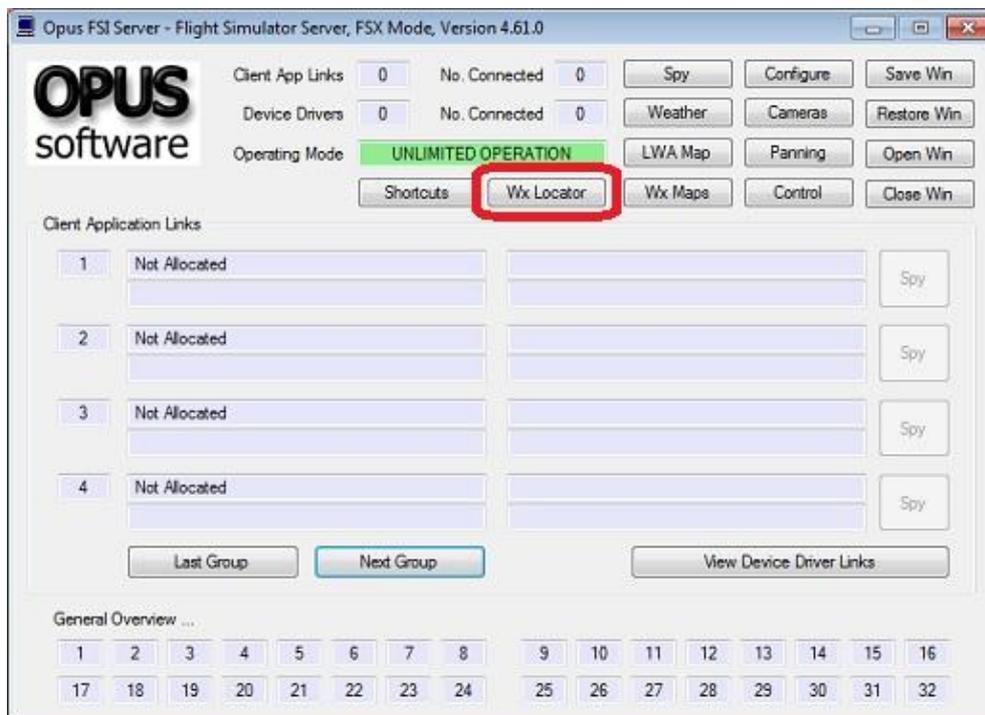
### Introduction

The **Weather Overview/Locator** feature is independent of both the simulator and the Live Weather Engine, hence, it can be used without the simulator running and before any weather is generated. The Live Weather Overview/Locator map can also be used with Opus World Weather Themes.

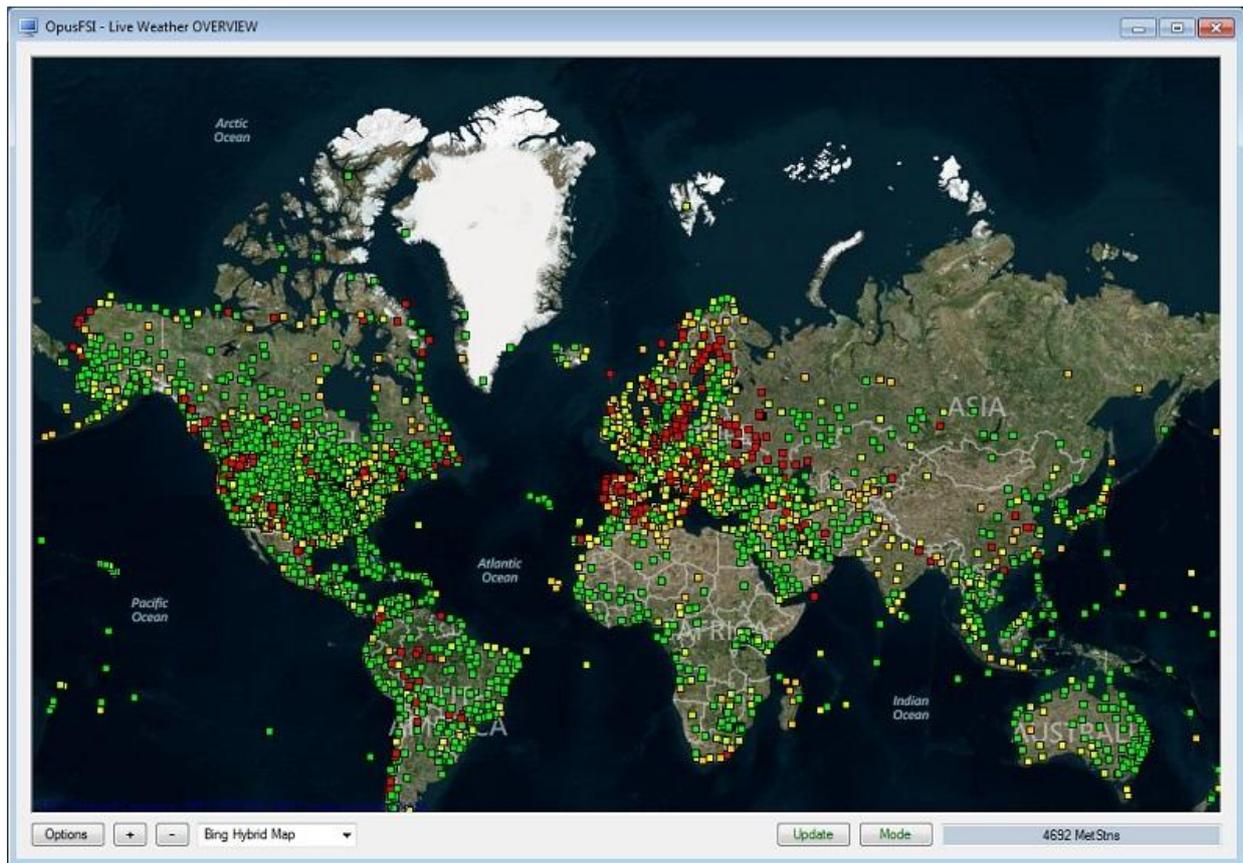
The **Weather Overview/Locator** can be used to either locate specific weather conditions on the map area that match user specified criteria, or obtain a **Weather Overview** of the general weather conditions. This is very useful for locating any weather you are interested in globally, or viewing a simple overview of the weather in a specific region of the world.

The weather criteria may be good or bad, based on some very simple user specified weather options. General weather conditions are depicted on the map using coloured dots to indicate good (green), moderately good (green yellow), moderate (yellow), moderately poor (orange), and poor (red) surface conditions.

### Using the Weather Locator



Click on the **Wx Locator** option within the Server dialog, a **Live Weather Overview** will be displayed. Click on the **Update** button to display the current weather conditions.

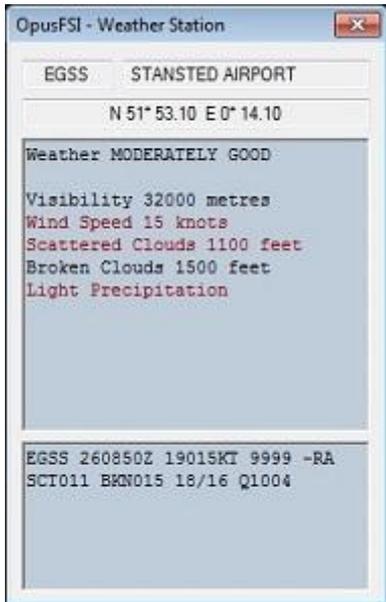


Weather conditions are depicted on the map using coloured dots. GREEN dots represent good conditions, YELLOW-GREEN dots for moderately good conditions, YELLOW dots for moderate conditions, ORANGE dots for moderately poor conditions, and finally RED dots for poor surface conditions.

Hovering the mouse over a met station will display the station ICAO and station name.



Click the mouse cursor over a met station (using either left or right button) to display the weather station data.



The most significant weather which determines the current condition (good, moderately good, moderate, moderately poor and poor conditions) is displayed in red text. Only the most significant i.e. lowest cloud layer for each cloud type (few, scattered etc) is reported.

### Zooming and Moving the Map Area

Use the + and - buttons to zoom in and out on the map. To move or drag the map area hold down the right mouse button whilst dragging the mouse, this won't work when you are hovering over a met station.

### Map Type

Click on the down arrow in the map type box to select between Open Street Map, Bing Map, Bing Satellite Map, Bing Hybrid Map, Google Map and Google Terrain Map. The **Weather Overview/Locator Options** dialog (**Options** button) includes an option to enable/disable the **Map Grey Scale**.

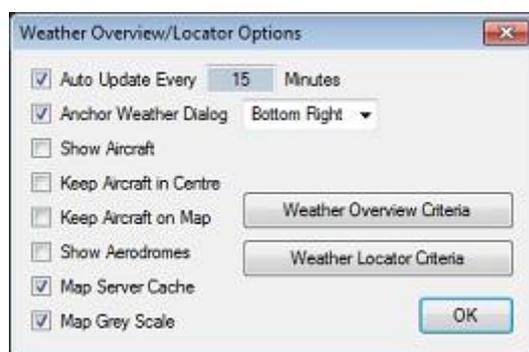
### Update

The **Update** button can be used any time you change the map location and need to refresh the weather data. The information box in the bottom right corner of the dialog indicates the current progress of the METAR download. N.B. the **Weather Overview/Locator Options** dialog (**Options** button) has an option to **Auto Update** at a user configurable time period.

### Mode

Changes the mode between **Live Weather OVERVIEW** and **Live Weather LOCATOR**. The current mode is always displayed on the caption bar.

### Options



## Auto Update Every xx Minutes

Used to enable/disable the Auto Update option and set the update interval in minutes after which the current METAR data will be downloaded and updated on the map.

## Anchor Weather Dialog

When enabled the **Weather Station** dialog will be anchored to the main **Live Weather Locator** dialog and aligned with the map. Select an option from the dropdown box to anchor either Top Left, Top Right, Bottom Left, or Bottom Right. When anchored the Weather Station dialog will be automatically closed each time you move the **Live Weather Overview / Locator** map.

## Show Aircraft, Keep Aircraft in Centre, and Keep Aircraft on Map

Enable the required options to **Show Aircraft**, **Keep Aircraft in Centre** or **Keep Aircraft on the visible Map**. The aircraft marker will only be displayed when the sim is active and the aircraft position data has been updated. The map will show your current aircraft's location using the custom Aircraft symbol in the OpusFSI/Aircraft.bmp bitmap file which you create yourself. If Aircraft.bmp does not exist then the default Aircraft\_Light.bmp is used. An AircraftHeavy.bmp and AircraftRotor.bmp are also provided. If you create your own custom aircraft symbol then use roughly the same sized square bitmap image (43x43 pixels) and use the same magenta colour for the background.



## Show Aerodromes

When enabled all aerodromes that are not also met stations will be displayed on the map as grey dots.

## Map Server Cache

Selecting **Map Server Cache** will speed up the display of the geographic map by saving it to cache instead of downloading it via the internet. Note that for Google and Bing maps you are limited to the number of downloads you can perform during a session.

## Map Grey Scale

The **Map Grey Scale** option makes it easier to view certain data against the geographical map.

## Weather Overview Criteria

	Good	Mod.Good	Moderate	Mod.Poor	
Visibility	8000	6500	5000	3000	metres
SCT Cloud Base	1200	1100	1000	800	feet
BKN Cloud Base	1400	1300	1200	1100	feet
Wind Speed	12	15	18	24	knots
Wind Gusts	14	17	20	26	knots
FEW CBs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SCT CBs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Precipitation	Very Light	Light	Light	Moderate	level

This option is selected via the **Options** dialog. The criteria for the five different weather conditions (good to poor) are all user configurable with suitable defaults provided (as per the above screenshot).

These criteria allow limits to be specified for surface visibilities, max allowed scattered cloud bases, max allowed broken/overcast cloud bases, wind speeds, wind gusts, and max allowed precipitation levels. We also include options to allow few or scattered+ CBs (thunderstorms) and TCUs (towering cumulus). In other words, decide whether to allow isolated or widespread CBs and TCUs.

### Visibility

Enter the visibility in meters for each of the weather categories (good through to moderately poor). The default values are 8000 meters or more for good visibility, 6500 to 8000 meters for moderately good visibility, 5000 to 6500 meters for moderate visibility, 3000 to 5000 meters for moderately poor visibility and less than 3000 meters for poor visibility.

### SCT Cloud Base

Enter the scattered cloud bases in feet for each of the weather categories (good through to moderately poor). The default values are 1200ft or higher for good conditions, between 1100ft and 1200ft for moderately good conditions, between 1000ft and 1200ft for moderate conditions, between 800ft and 1000ft for moderately poor conditions, and less than 800ft for poor conditions.

### BKN Cloud Base

Enter the broken cloud bases in feet for each of the weather categories (good through to moderately poor). The default values are 1400ft or higher for good conditions, between 1300ft and 1400ft for moderately good conditions, between 1200ft and 1300ft for moderate conditions, between 1100ft and 1200ft for moderately poor conditions, and less than 1100ft for poor conditions.

## **Wind Speed**

Enter the max allowed wind speed figures in knots for each of the weather categories (good through to moderately poor). The default values are 12kts or lower for good conditions, between 12kts and 15kts for moderately good conditions, between 15kts and 18kts for moderate conditions, between 18kts and 24kts for moderately poor conditions, and greater than 24kts for poor conditions.

## **Wind Gusts**

Enter the wind gust figures in knots for each of the weather categories (good through to moderately poor). The default values are 14kts or lower for good conditions, between 14kts and 17kts for moderately good conditions, between 17kts and 20kts for moderate conditions, between 20kts and 26kts for moderately poor conditions, and greater than 26kts for poor conditions.

## **FEW CBs**

Tick the checkboxes to determine if few cumulonimbus (CB) clouds are acceptable for each of the weather categories (good through to moderately poor). CBs and TCUs are interpreted with respect to the 'Thunderstorms need TS Descriptor' Weather Preferences option.

## **SCT CBs**

Tick the checkboxes to determine if widespread (scattered or more) cumulonimbus (CB) clouds are acceptable for each of the weather categories (good through to moderately poor).

## **Precipitation**

Select the maximum precipitation (rain or snow) levels from the dropdown boxes for each of the weather categories (good through to moderately poor). Available entries are None, Very Light, Light, Moderate, and Heavy.

## Weather Locator Criteria

<input type="checkbox"/>	Weather	Moderate	or Worse
<input checked="" type="checkbox"/>	Visibility	9999 m	User
<input checked="" type="checkbox"/>	Cloud Base	5000 ft	None Below
<input type="checkbox"/>	Cumulonimbus (CB)		Few +
<input type="checkbox"/>	Towering Cumulus (TCU)		Few +
<input type="checkbox"/>	Precipitation	All	Very Light +
<input type="checkbox"/>	Wind Speed	18 kts	or Higher
<input type="checkbox"/>	Wind Gusts	20 kts	or Higher

OK

This option is selected via the **Options** dialog. The displayed screenshot illustrates a CAVOK (ceiling and visibility OK) criteria.

You may choose to specify criteria for general weather, visibility, cloud base, reported cumulonimbus or towering cumulus clouds, precipitation type and levels, wind speeds and wind gusts.

### Weather

Tick this checkbox to enable general weather checking. Specify the required weather condition (good, moderately good, moderate, moderately poor, or poor) from the first dropdown box. Specify the required matching criteria (Only, or Better, or Worse) from the second dropdown box. The 'Only' criteria will match the specified weather condition exactly.

### Visibility

Tick this checkbox to enable visibility checking. The **maximum** visibility can be specified in metres using the textbox provided. Enter a distance code of **9999** when interested in sites that have no visibility restriction reported (i.e. visibility is greater than or equal 10000 metres). Any time you enter a visibility figure the dropdown box will be changed to 'User' indicating a user specified visibility. The dropdown box can also be used to select the visibility assigned to any required weather condition (good, moderately good, moderate, moderately poor, or poor).

N.B.

Apart from a distance code of 9999, the visibility is assumed to be a maximum distance in metres, that is, the criteria will match all sites that have visibilities equal to or less than the specified distance.

## Cloud Base

Tick this checkbox to enable cloud base and coverage checking. The required minimum cloud base is specified in feet AGL. The cloud cover option (None below, Few+, Scattered+, Broken+, or Overcast) is specified using the dropdown box. A selection of 'None Below' will match sites that report no cloud at or below the specified cloud base. A selection such as 'Scattered+' will match sites that report **at least** 3 octas (= SCT, scattered cloud), that is, sites that have reported either scattered, broken, or overcast cloud at or below the cloud base.

## Cumulonimbus

Tick this checkbox to enable the cumulonimbus (CB) cloud checks. Use the dropdown box to select the required extent (None, Few+, Scattered+) of the reported thunderstorms. A selection such as 'Few+' will match sites that report **at least** 1 octas (= FEW, few CB clouds), that is, sites that have reported either few, scattered, broken, or overcast cumulonimbus (CB) clouds.

## Towering Cumulus

Tick this checkbox to enable the towering cumulus (TCU) cloud checks. Use the dropdown box to select the required extent (None, Few+, Scattered+) of the reported towering cumulus. A selection such as 'Few+' will match sites that report **at least** 1 octas (= FEW, few TCU clouds), that is, sites that have reported either few, scattered, broken, or overcast towering cumulus (TCU) clouds.

## Precipitation

Tick this checkbox to enable the precipitation checks. Use the first dropdown box to select the precipitation type (All, Rain or Snow). Use the second dropdown box to select the intensity of the precipitation (None, Very Light+, Light+, Moderate+, Heavy). A selection of 'Light+' will match sites that report light, moderate, or heavy precipitation.

## Wind Speed

Tick this checkbox to enable the wind speed checks. The required wind speed is entered in knots in the textbox provided. Use the dropdown box to select the required wind speed range (Exact, or Lower, or Higher).

## Wind Gusts

Tick this checkbox to enable the wind gust checks. The required wind gust is entered in knots in the textbox provided. Use the dropdown box to select the required wind gust range (Exact, or Lower, or Higher).