

Sferic Maps User Guide

Sferic Maps
Version 2.8
User Guide



EARTH
NETWORKS

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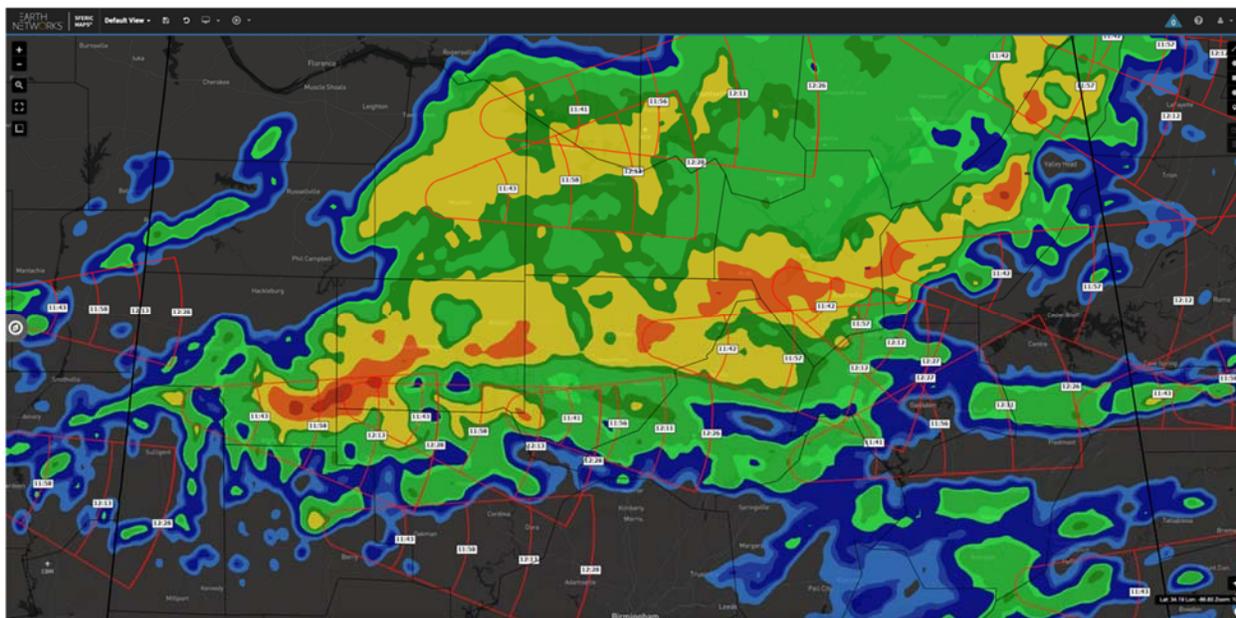
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1 Overview

Earth Networks Sferic Maps is an enterprise-class weather visualization dashboard that provides a fully interactive map experience with a comprehensive collection of exclusive, commercial-grade weather data. Customers have the ability to monitor near real-time weather observation data from the Earth Networks weather network and overlay numerous enhanced and exclusive map layers to stay up-to-date with significant weather events before they develop.



2 System Requirements

Sferic Maps can be accessed on a Windows PC or Mac device using the following web browsers:

- [Apple Safari](#) (Mac and iOS)
- [Google Chrome](#)
- [Mozilla Firefox](#)
- [Microsoft Edge](#) (New Chromium-based version)

Mobile devices running iOS or Android can also download [Sferic Mobile](#) to access Sferic Mobile and push notification weather alerts when on the go.

Because Sferic Maps is a web-based product, Sferic Maps can be accessed on other operating systems such as Google Chrome OS or a distribution of Linux, although accessing Sferic Maps on a Windows PC or Mac is recommended.

2.1 Firewall Settings Recommendations

Earth Networks recommends whitelisting the following URL's in the local firewall:

- * [.api.earthnetworks.com](#)
- * [.tiles.mapbox.com](#)
- * [.googleapis.com](#)
- [fonts.gstatic.com](#)
- [login.earthnetworks.com](#)
- * [.bootstrapcdn.com](#)
- [pulse.earthnetworks.com](#)
- [sfericmaps.enterprise.earthnetworks.com](#)
- [sfericmaps.earthnetworks.com](#)
- [notification.earthnetworks.com](#)
- [profile.earthnetworks.com](#)

2.2 Entering a Static IP Into Security Software for Sferic Maps

To enter a Static IP into security software to allow Sferic Maps to communicate through the security software, a proxy can be created on a customer's network in order to route data calls through the security software. Sferic Maps is hosted using Amazon Web Services.

Data can be pulled from the following URL: <https://ip-ranges.amazonaws.com/ip-ranges.json>, which can have the IP address ranges pulled into the customer's firewall for the Amazon Web Services datacenter region: "us-east-1."

Additionally, customers can whitelist the service name as follows: sns.us-east-1.amazonaws.com.

Generally, Amazon Web Services recommends whitelisting based on **DNS** as opposed to Static IP addresses.

3 Accessing Sferic Maps via a Web Browser

1. Visit <https://Login.EarthNetworks.com>.
2. Sign in with an **Earth Networks Enterprise Portal ID** (Username is an **email address**).

Sign In

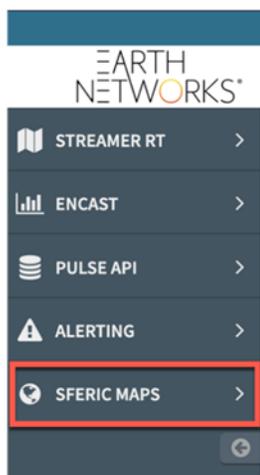
USERNAME*
@earthnetworks.com

PASSWORD*

SIGN IN

[Forgot your password?](#)

3. On the Earth Networks Enterprise Portal profile screen, select **Sferic Maps** on the left-hand sidebar.



4. Sferic Maps will successfully load.



4 Navigating around the Sferic Maps User Interface

To zoom the map view into a more detailed level, select the **Zoom In** button in the upper left-hand portion of the screen.



Customers can also more precisely zoom in by using the **Select and Zoom** button, then drawing a box around the specific area where the customer wishes to zoom into.



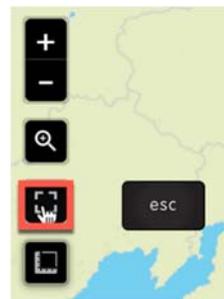
To zoom the map out to a wider level, select the **Zoom Out** button in the upper left-hand portion of the screen.



To pan around on the map, left click and drag the mouse around the map.



To view the map in full-screen mode, select the **View Full Screen** button in the upper left-hand portion of the screen. To exit full-screen mode, hit the **Esc** key on the keyboard.



The difference between full-screen mode in Sferic Maps and the web browser's full-screen mode is the full-screen mode in Sferic Maps also hides the web browser's elements, allowing customers to focus solely on the map and weather data layers in Sferic Maps. The full-screen mode in the web browser can continue to display the web browser's elements. For customers who wish to focus on the map and weather data layers in Sferic Maps, customers will want to use the full-screen mode in Sferic Maps instead of the web browser's full-screen mode.



When dragging the mouse cursor around the screen, the Latitude/Longitude of the center of the map displays in the lower-right corner of the screen. The Latitude/Longitude of the mouse is labeled with **Cursor**.

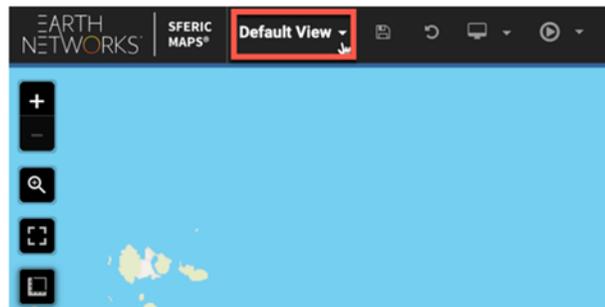


5 Saving Custom Map Views

Sferic Maps customers can save multiple custom map views and easily switch between them.

To create a custom map view:

1. Select the **Custom Map Views** drop down menu on the main toolbar.



2. Select **Add**.



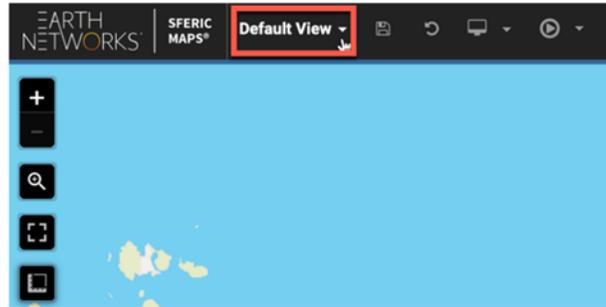
3. Name the custom map view, then select **Save** (checkmark) icon to save the custom map view.



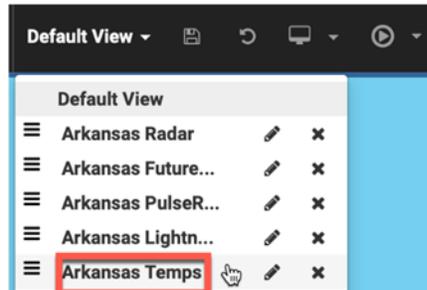
A good naming convention to use in Sferic Maps for custom map views is the geographic location (such as a country, region state, city, county, or location) and one of the map weather data layers (such as temperatures, radar, or lighting).

To switch between custom map views:

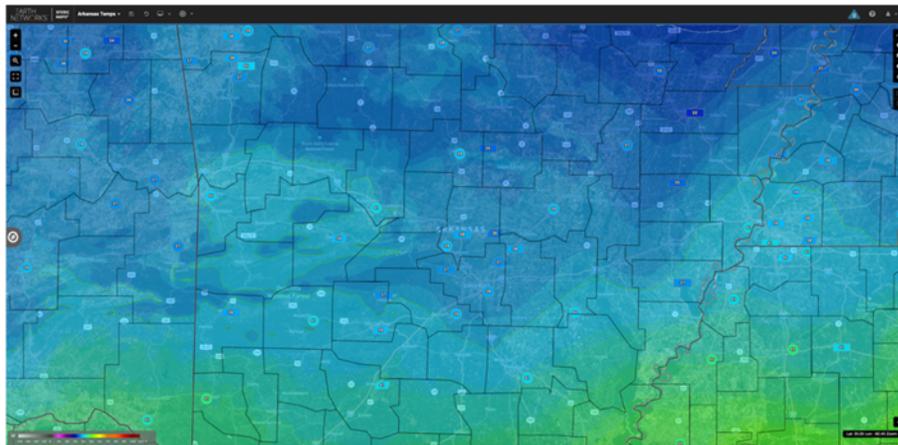
1. Select the **Custom Map Views** drop down menu on the main toolbar.



2. Select the custom map view.



3. Sferic Maps will switch to custom map view selected.



To re-arrange custom map views:

1. Select the **Custom Map Views** drop down menu on the main toolbar.



2. Select and drag **Re-Arrange Map View** icon next to the custom map views the customer wishes to re-arrange.

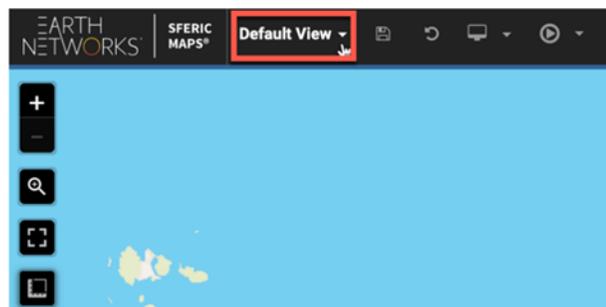


3. The custom map views will be re-arranged in the custom map views drop down menu to the customer's preference.



To edit a custom map view's name:

1. Select the **Custom Map Views** drop down menu on the main toolbar.



2. Select **Edit View Name** (pencil) icon next to the custom map view’s name needing editing.



3. Edit the custom map view’s name, then select the **Save** (check box) icon to save the custom map view’s name edits.

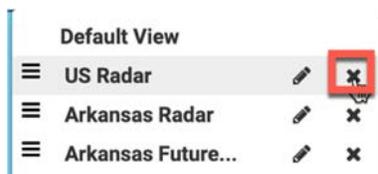


5.1 To delete a custom map view:

1. Select the **Custom Map Views** drop down menu on the main toolbar.

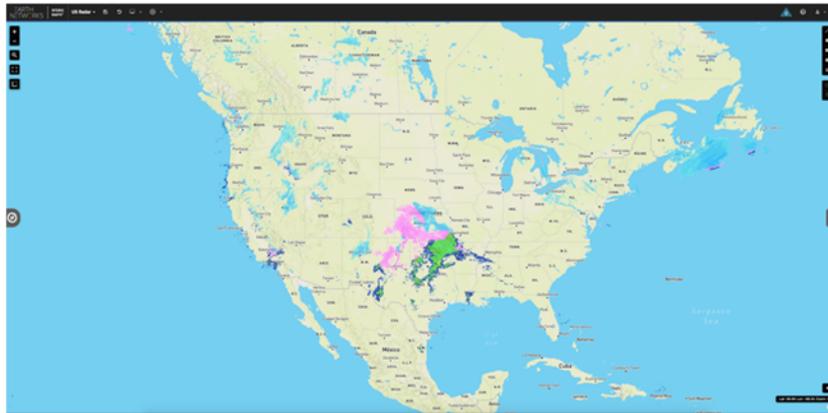


2. Select the **Delete View** “x” icon next to the custom map view the customer wishes to delete.

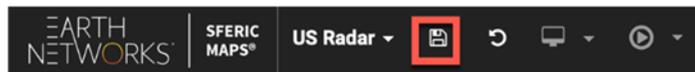


5.2 To save map changes to a custom map view after creating a custom map view:

1. Make the necessary map changes such as zooming, panning, adding, or removing map layers.



2. Select the **Save View** icon on the main toolbar.



To undo map changes to a custom map view since previously saving changes to a custom map view, select the **Undo View Changes** icon on the main toolbar.



6 Working with User Layers

After customers add various weather data map layers to Sferic Maps, customers can adjust many of the various weather data map layers using the **User Layers** panel in the **Workspace**. To work with User Layers in Sferic Maps, customers will want to perform the following steps:

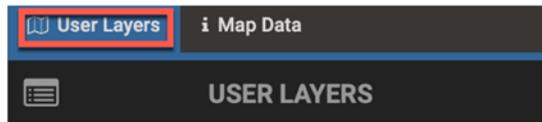
1. Add one or more weather data map layers to the map.



2. Click to expand the **Workspace** from the right-hand side of the screen.



3. Select the **User Layers** tab is at the top of the **Workspace** from the right-hand side of the screen.



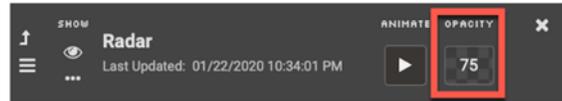
4. To show or hide a weather data map layer without completely removing the layer from the map, select the **Show/Hide** icon next to the weather data map layer in the **User Layers** tab.



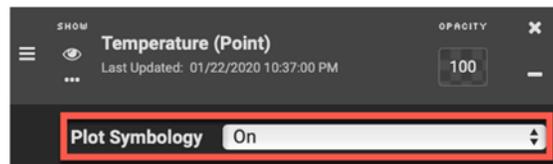
5. To display a legend of the weather data map layer inside the **User Layers** tab, select the **show legend** button next to the weather data map layer in the **User Layers** tab. To display the legend of the weather data map layer directly on the map, select the **checkbox** next to the weather data map layer's legend under **User Layers**.



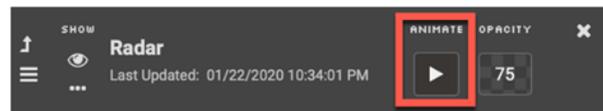
6. To change the opacity of a weather data map layer, change the number of the **Opacity** (from 0 to 100) next to the weather data map layer in the **User Layers** pane.



7. Some weather data map layers offer the ability to adjust additional options concerning the weather data map layer using drop down menus. For example, observation points allow customers to turn the plot symbology (polygons) on or off on the map using the **User Layers** pane.



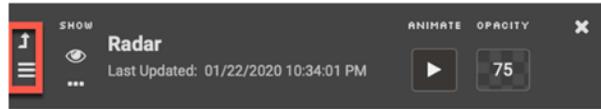
8. Some weather data map layers allow the ability to animate the weather data map layer. To animate these layers, select the **Animate** button next to the weather data map layer in the **User Layers** pane.



The following map layers can be animated in Sferic Maps:

- Radar
- Forecast Radar
- PulseRad
- Single Site Radar
- Storm Cell Info
- Global IR Satellite
- European IR Satellite
- North America IR Satellite
- North America Visible Satellite
- Lightning
- Lightning Cell Tracks
- Lightning Polygons

9. Weather data map layers can be re-arranged in the **User Layers** pane, as well as one weather data map layer can be sent to the top by selecting the arrow.



7 Changing the Custom Base Map

Sferic Maps includes a range of custom high-resolution map backgrounds available to customers. In order to change the custom base Map in Sferic Maps, complete the following steps:

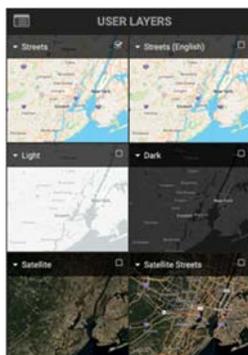
1. Select the arrow on the right-hand side of the screen to expand the **User Layers** workspace.



2. Select the **Change** button in the lower right corner.



3. Select one of the custom base map backgrounds and select **Done**.



4. The custom base map background will change to the customer's selection.

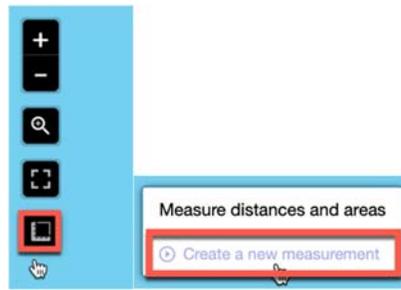


Each saved custom view can have a custom base map background.

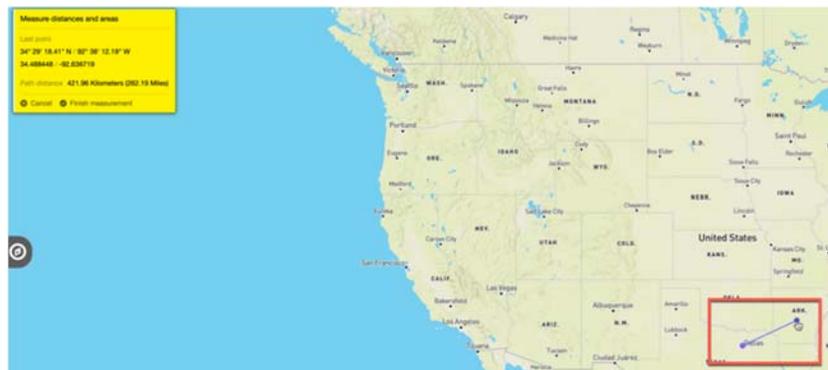
8 Using the Distance Measuring Tool

To use the distance measuring tool in Sferic Maps, customers will want to complete the following steps:

1. Select the **Measure Distances and Areas** icon in the upper left-hand portion of the screen. Select **Create a New Measurement**.

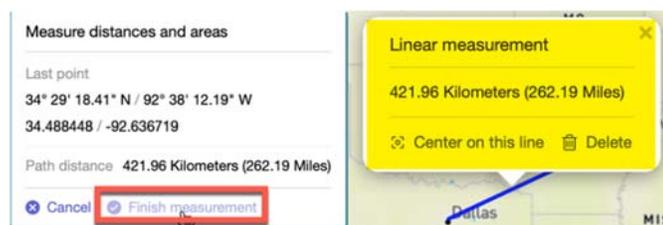


2. Click anywhere on the map to create the starting point. Click to create the finishing point. The distance will display in the upper left-hand portion of the screen.

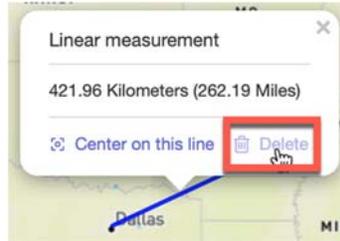


If you click on a third point, the area will be displayed in addition to the distance.

3. Select **Finish Measurement**. The measurement will move into a popover connected to the line drawn on the map.



4. When finished with the measurement, select **Delete** in the measurement popover.



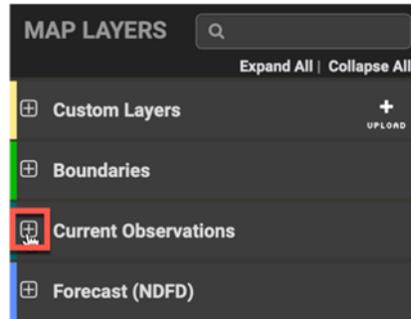
9 Using Map Layers

Sferic Maps offers a range of weather data map layers. To add or remove map layers in Sferic Maps, customers will want to perform the following steps:

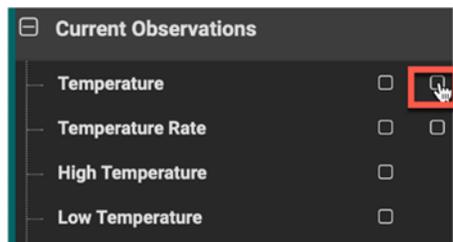
1. Open the **Map Layers** panel on the left-hand portion of the screen.



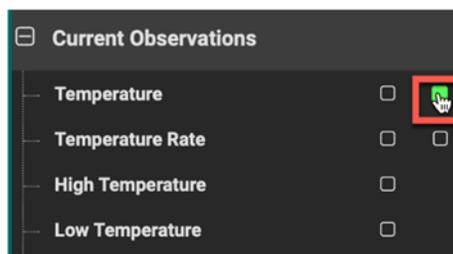
2. Select the **plus** button to expand one of the major categories of weather data map layers (this example will use the Current Observations major category).



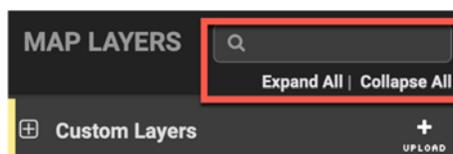
3. To add a weather data map layer to the map, select the **checkbox** next to the **contours** column (most weather data map layers) and/or the **points** column (Current Observations and Forecast) next to a weather data map layer.



4. To remove a weather data map layer to the map, de-select the **checkbox** next to the **contours** column (most weather data map layers) and/or the **points** column (Current Observations and Forecast) next to a weather data map layer.



5. To see all major categories expanded in the Map Layers panel, select **Expand All**. To see all major categories collapsed in the Map Layers panel, select **Collapse All**. Customers can also use the **search box** on the Map Layers panel to search for a particular weather data map layer.



9.1 Sources of Weather Data Available in Sferic Maps

The sources of weather data available in Sferic Maps include public weather data sources from the National Weather Services and other international weather agencies, as well as exclusive data from the Earth Networks network of real-time, commercial-grade weather stations across the globe.

The Difference Between the Commercial Weather Data Exclusive to Earth Networks in Sferic Maps and Public Weather Data Available Elsewhere

Some of the weather data exclusive to Earth Networks that is available in Sferic Maps includes:

- Observations from the [Earth Networks weather network](#); a global network of real-time, commercial-grade weather stations
- Lightning data from the [Earth Networks Global Lightning Network](#); the world's most advanced lightning network capable of detecting both in-cloud and cloud-to-ground lightning.
- Camera images from the [Earth Networks camera network](#); offering high-definition views of weather conditions installed at various Earth Networks weather station locations.
- [Earth Networks Dangerous Thunderstorm Alerts](#); weather alerts generated from intense lightning activity detected by the Earth Networks Total Lightning Network as a precursor to major severe weather events.
- [PulseRad](#); a Doppler radar alternative based on lightning intensity from the Earth Networks Total Lightning Network, useful in areas where traditional Doppler radar does not reach.
- [ENcast](#); pinpoint accurate forecasts anywhere on the globe using the observation data from the Earth Networks weather network.

Refresh Rate for Weather Data in Sferic Maps

Sferic Maps automatically refreshes the map display once every minute. However, map data layers will update at various intervals depending on the map data layer type:

- Observation data points update based on the station's update rate. Customers can force a refresh update of data points by panning the map.
- Observation contours update once every five minutes.
- Radar layers update once every five minutes.
- Satellite layers update once every fifteen minutes for North America and Europe and once every hour for global IR satellite.
- Snow, ice, and rain layers generally update once every hour, although they can update on a variable basis.
- River flood layers update about two to four times per day.
- Tropical layers will generally update about four times per day.
- Alert layers update once every minute.

Geographic Coverage of the Data Available in Sferic Maps

The weather data in Sferic Maps includes global geographic coverage spanning six continents (North America, South America, Europe, Africa, Asia, and Australia). Earth Networks operates the world's largest commercial grade weather network in the industry. For more information concerning the geographic coverage of the Earth Networks weather network, [click here](#).

Please note that some of the weather data in Sferic Maps is only available in select geographic regions, and some of the weather data in Sferic Maps is only available in the United States. The majority of the weather data in Sferic Maps, including weather data exclusive to Earth Networks, is available across our entire global geographic coverage.

10 Map Content in Sferic Maps

10.1 Boundaries:

US States: Boundary lines for all fifty United States. Customers can customize the color (from eight different color choices) and width (from five different width choices) for the boundary lines.

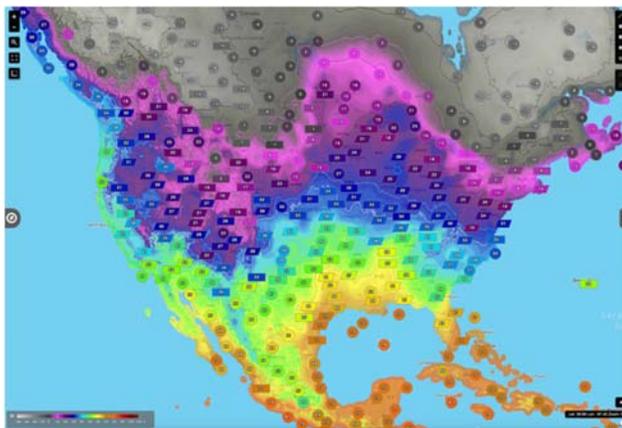


US Counties: Boundary lines for the counties of all fifty United States. Customers can customize the color (from eight different color choices) and width (from five different width choices) for the boundary lines.



10.2 Current Observations:

Temperature: The current temperatures measured in degrees (available globally, includes temperature data from the exclusive Earth Networks weather network).



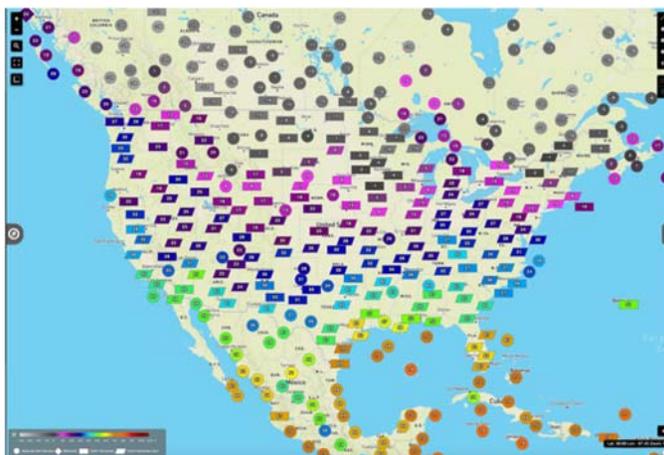
Temperature Rate: The rate of change of the temperature across an hour, measured in degrees /hour (available globally, includes temperature data from the exclusive Earth Networks weather network).



High Temperature: The current day's high temperatures measured in degrees (available globally, includes temperature data from the exclusive Earth Networks weather network).



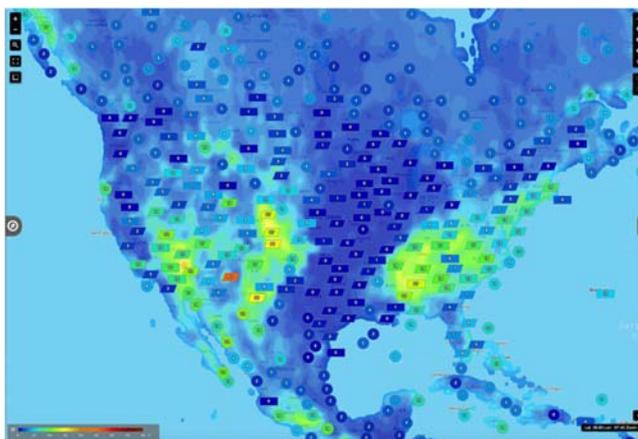
Low Temperature: The current day's low temperatures measured in degrees (available globally, includes temperature data from the exclusive Earth Networks weather network).



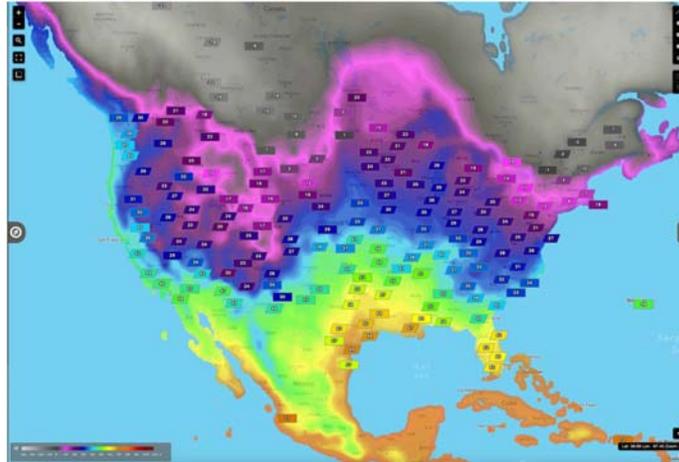
Dew Point: The current dew points in which the atmosphere must be cooled to achieve water vapor saturation measured in degrees (available globally, includes data from the exclusive Earth Networks weather network).



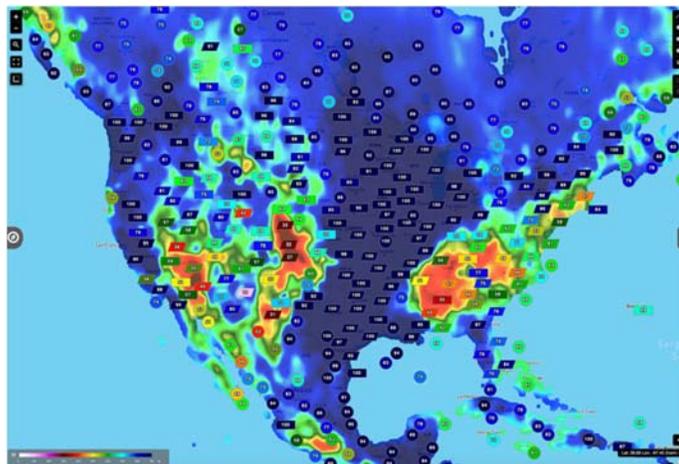
Dew Point Depression: The difference between the temperature and dew point normalized to sea level (available globally, includes data from the exclusive Earth Networks weather network).



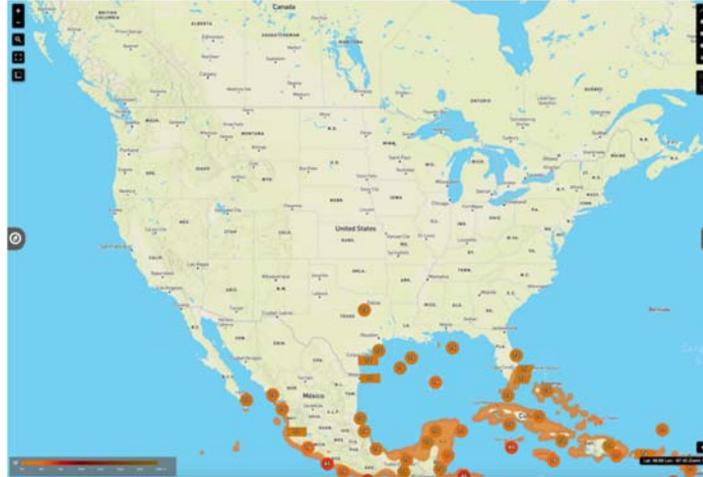
Wet Bulb Approximation: The approximation of the web bulb temperature is the coolest temperature possible due to evaporation. **Note that this is different from the Wet Bulb Globe temperature, which takes more variables into account, such as sun and wind** (includes data from the exclusive Earth Networks weather network).



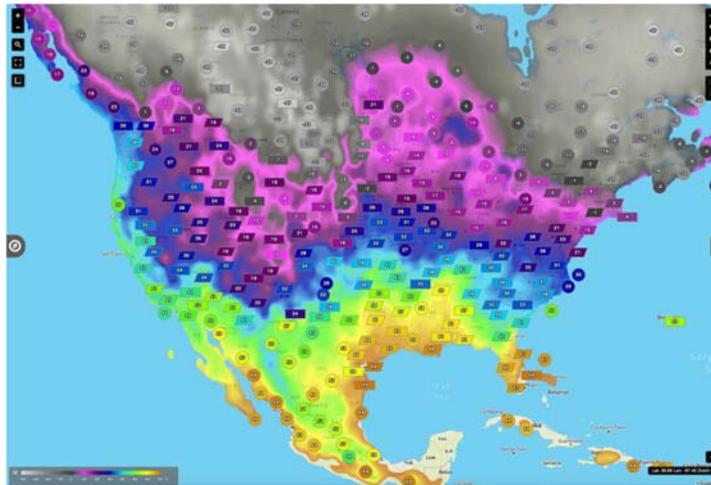
Humidity: The current humidity determining the amount of moisture in the atmosphere measured in percentages (available globally, includes humidity data from the exclusive Earth Networks weather network).



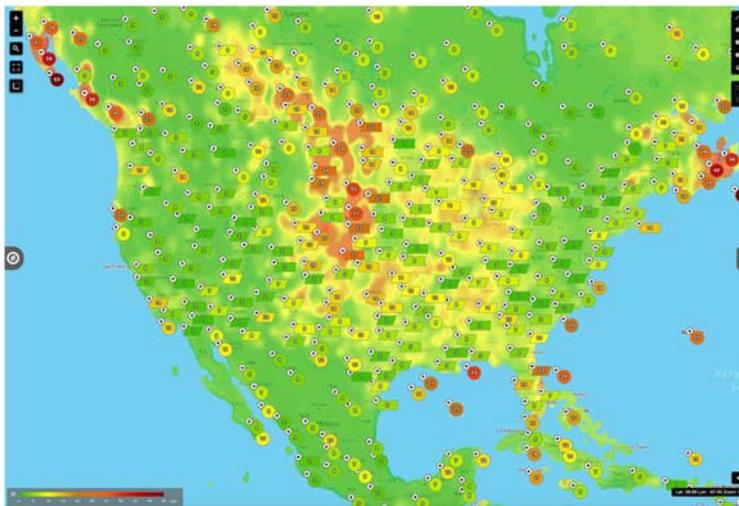
Heat Index: The current heat indices factoring humidity into temperature readings to determine how warm the weather feels during summer weather measured in degrees (available globally, includes data from the exclusive Earth Networks weather network).



Wind Chill: The current wind chill observations factoring wind into temperature readings to determine how cold the weather feels measured in degrees (available globally, includes data from the exclusive Earth Networks weather network).



Wind Speed and Direction: The current wind speed and direction; measurement varies by selected unit under *Settings* (available globally, includes data from the exclusive Earth Networks weather network).



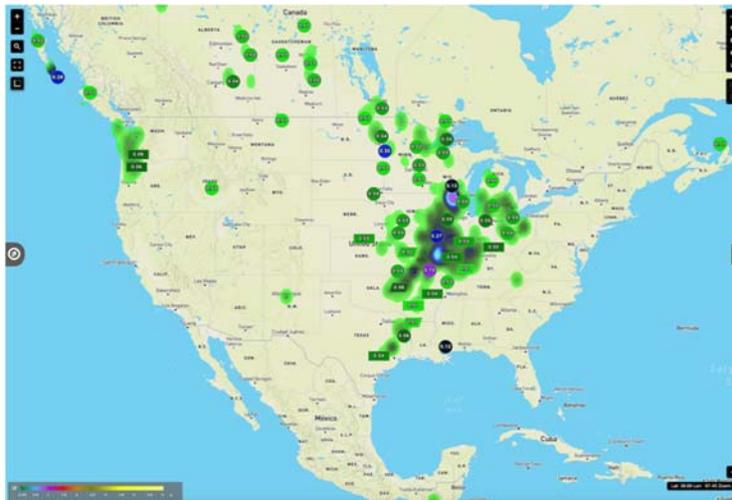
Hourly Wind Gust and Direction: The past hour's highest wind speed; measurement varies by selected unit under *Settings* (includes data from the exclusive Earth Networks weather network).



Daily Wind Guest and Direction: The current day's highest wind speed; measurement varies by selected unit under *Settings* (available globally, includes data from the exclusive Earth Networks weather network).



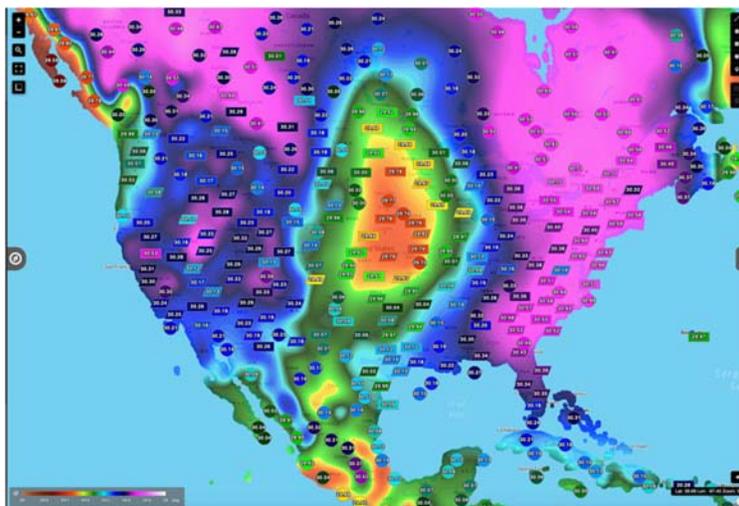
Rain Rate: The current rate of rainfall; measurement varies by selected unit under *Settings* (generally in a measurement per hour such as inches per hour, available globally, includes rain data from the exclusive Earth Networks weather network).



Daily Rain: The current day's rain totals (starting from midnight); measurement varies by selected unit under *Settings* (available globally, includes rain totals from the exclusive Earth Networks weather network).



Sea Level Pressure: The current sea-level adjusted barometric pressure reading; measurement varies by selected unit under *Settings* (available globally, includes data from the exclusive Earth Networks weather network).



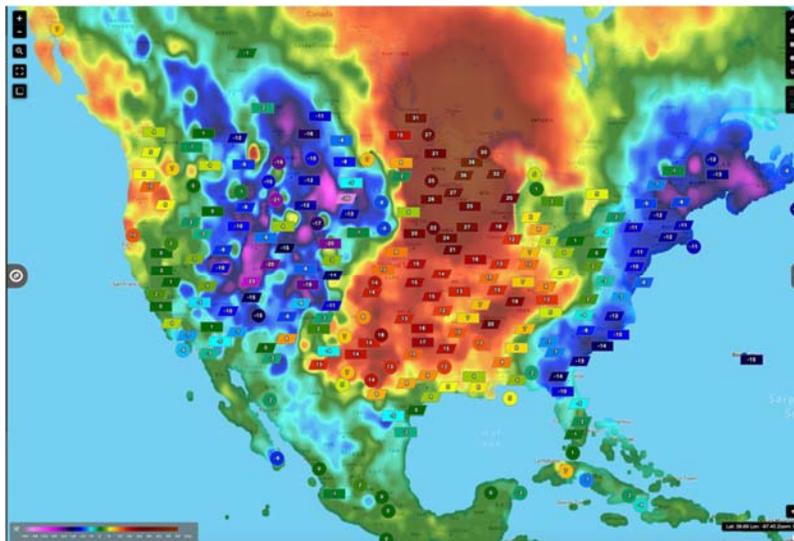
Sea Level Pressure Rate: The pressure rate normalized to sea level. The pressure rate used on the Earth Networks weather network is always normalized to sea level (available globally, includes data from the exclusive Earth Networks weather network).



Pollen: The current pollen count measured on a scale of 0 to 12.5 (United States only, data sourced from Pollen.com).

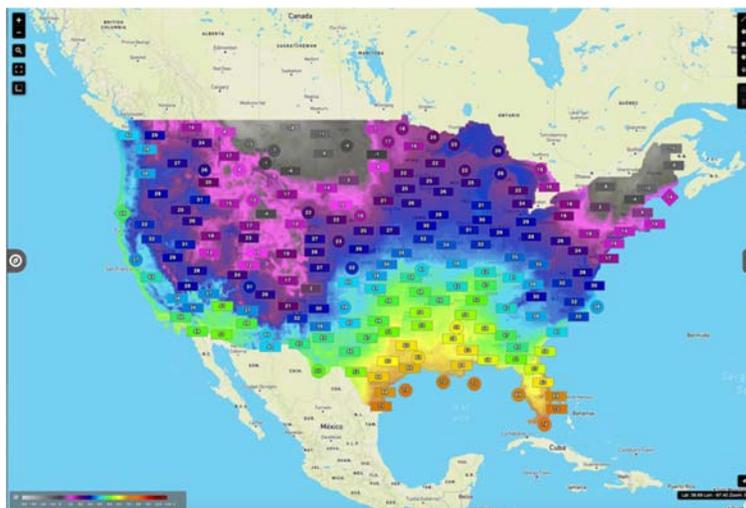


Temperature Deviation from Yesterday: The difference between the temperature from the previous day to the current day, measured in degrees (available globally, includes data from the exclusive Earth Networks weather network).

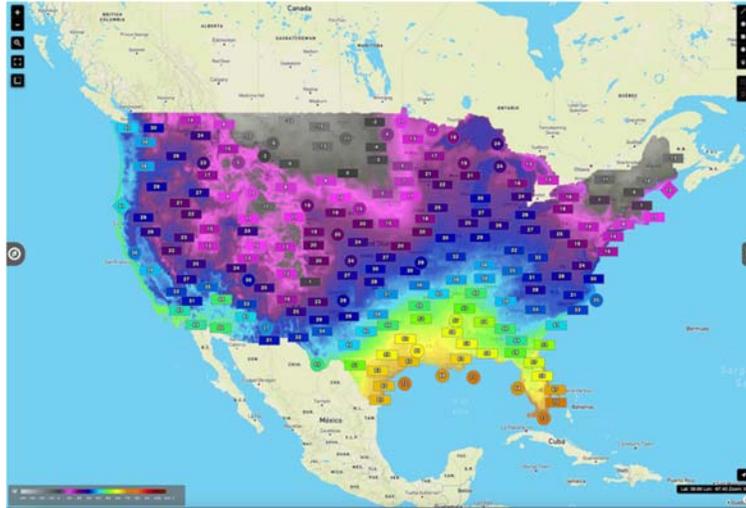


10.3 NDFD Forecast Temp

NDFD Current Temperature Forecast: NWS Forecast information provided by the National Digital Forecast Database (NDFD).



NDFD Low/High Forecast Temperatures for Days 1-7: NWS Forecast information for high and low temperatures provided by the NDFD available as point data and color contour (from 12 am local time to approximately 8 am local time, the Day 7 low temperature will be unavailable until the overnight model run is updated).

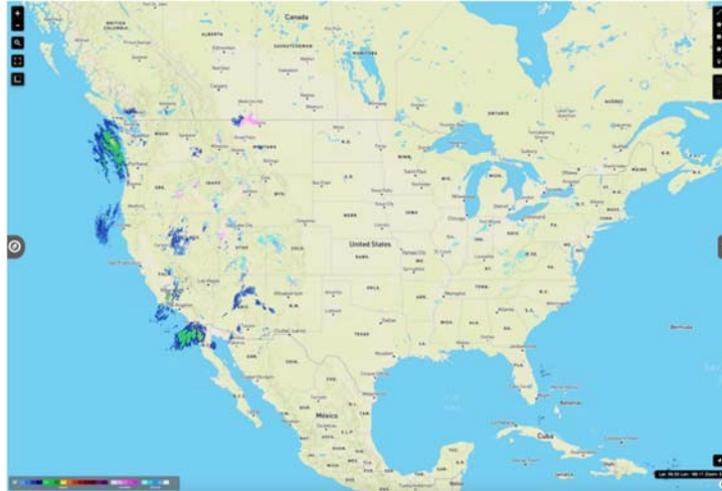


Temp Deviation: Displays the deviation between forecast temperatures and current temperatures as point data and color contour. Available in three selections: Current Temp from Low Temp Forecast, Current Temp from High Temp Forecast, and Current Temp Forecast from Current Observed.

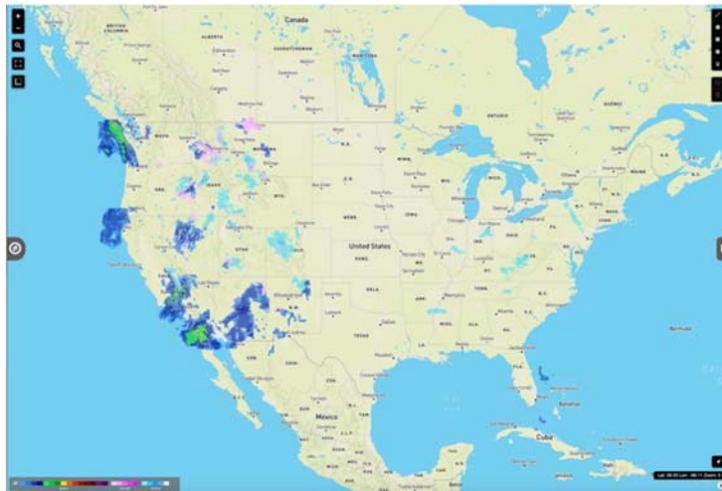


10.4 Radar & Satellite:

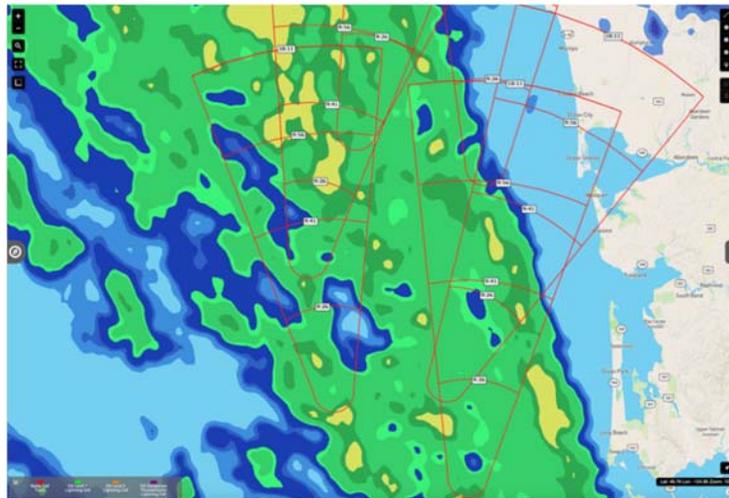
Radar: The current reflectivity radar mosaic (Level III NEXRAD). Includes winter precipitation typing differentiating between rain, snow, and wintry mix precipitation. Winter precipitation typing utilizes temperature data from the exclusive Earth Networks weather network to more accurately fine-tune the contours between winter precipitation typing differences (United States and Canada only).



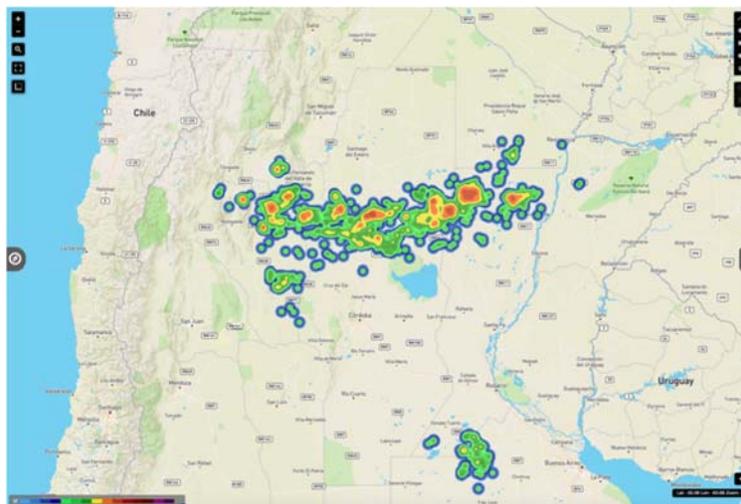
Forecast Radar: The forecast precipitation/reflectivity radar mosaic (data from a proprietary algorithm using current radar and model data) for the next two hours in ten-minute intervals. Includes winter precipitation typing differentiating between rain, snow, and wintry mixed precipitation. Winter precipitation typing utilizes temperature data from the exclusive Earth Networks weather network to more accurately fine-tune the contours between winter precipitation typing differences (United States Only).



Storm ETA: Displays the estimated time or arrival for the core of the storm cell to reach an area. The forecast polygon displays up to 45 minutes from now with a range ring at each 15-minute interval. When zoomed in, the range ring displays the local time when the core will reach that area. Red displays ETAs from NWS SCIT vectors and NWS Doppler Radar SCIT storm tracks. Green through Purple displays lightning storm tracks from the exclusive [Earth Networks Total Lightning Network](#). Green displays Level 1 lightning cell tracks, Orange displays Level 2 lightning cell tracks, and Purple displays [Earth Networks Dangerous Thunderstorm](#) lightning cell tracks.



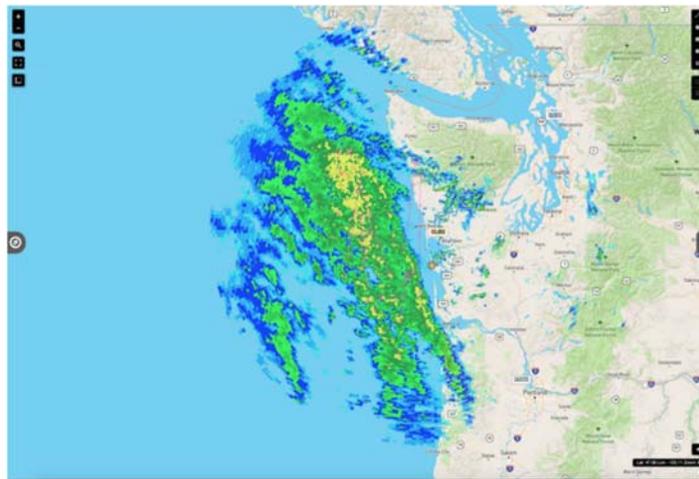
PulseRad: The current reflectivity mosaic of the exclusive Earth Networks PulseRad radar alternative based on lightning intensity from the Earth Networks Total Lightning Network. PulseRad is especially useful in geographic areas where traditional radar is difficult or impossible to reach (available globally). More information about PulseRad is [available here](#).



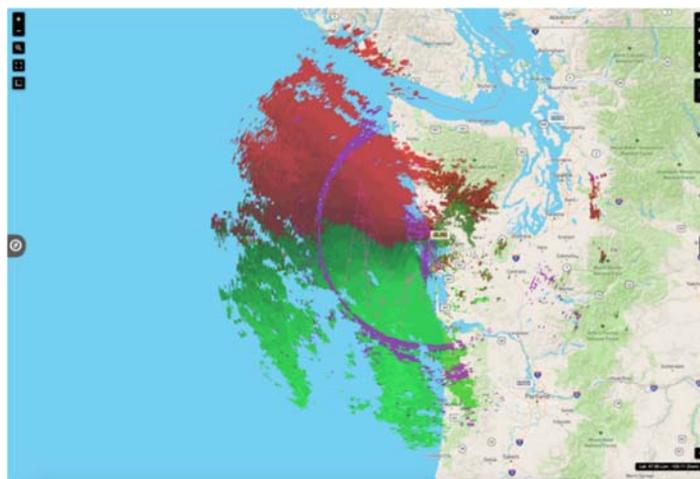
Single Site Radar: The current radar data (Level III NEXRAD) available at single radar sites (United States only). After selecting the Single Site Radar option, one will need to choose the radar site one wishes to view radar data from. Each radar site name is a four-letter callsign.

The following single site radar data layers are available in Sferic Maps:

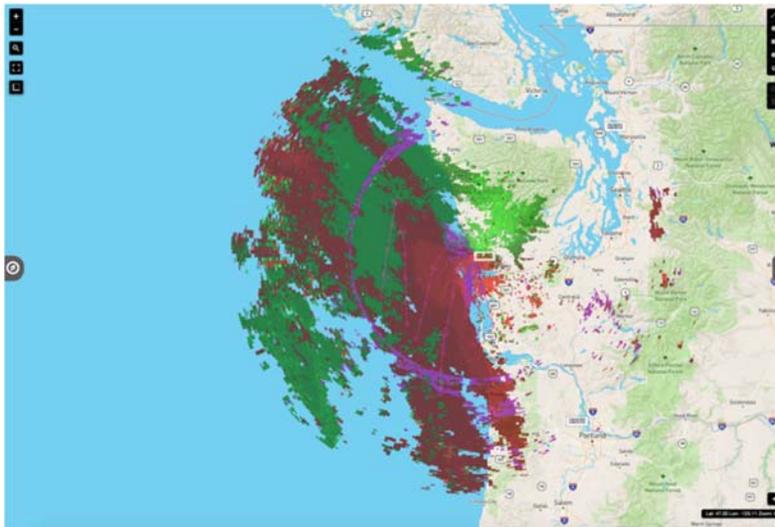
Base Reflectivity: The current reflectivity displaying the intensity of precipitation or a storm in (measured in DBZ). Unlike the radar mosaic, single site radar data is not smoothed or filtered but offered in its original format. It also does not display winter precipitation typing due to the raw nature of the radar data.



Base Velocity: The current radar-indicated winds blowing toward and away from the radar site, beneficial for detecting wind shear during a severe weather event (measured in knots).

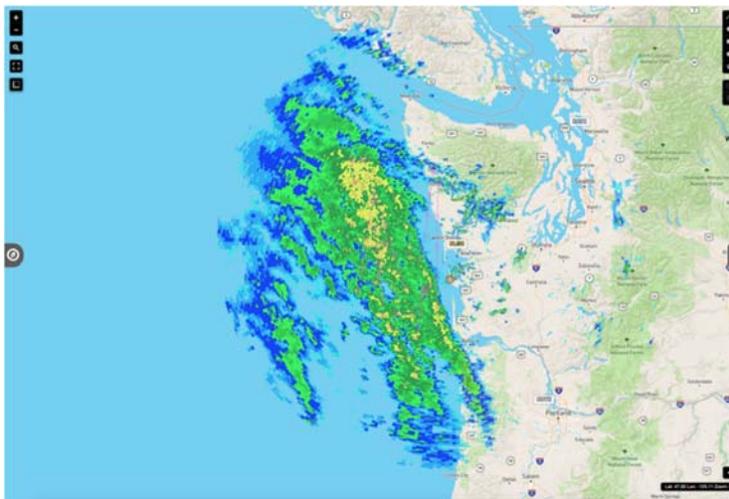


Storm Relative Velocity: The current radar-indicated winds blowing toward and away from the radar site, not including the motion of the storm, additionally beneficial for detecting wind shear during a severe weather event (measured in knots).

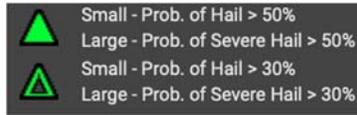


The following SCIT (Storm Cell Identification and Tracking) data layers from the National Weather Service are available in Sferic Maps:

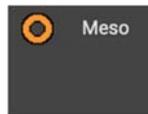
Storm Tracks: Storm Tracks are generated by the National Weather Service (displayed on the map as pink arrows) to determine the direction of the storm. Clicking on a Storm Track displays more information about the storm under *Map Data*.



Hail Index: Hail Index indicators determine areas of potential hail occurring in a storm, as well as the estimated size of the hail (monitored in inches or portions of an inch).



Meso Cyclones: Meso Cyclone indicators determine areas of intense wind shear which can be a precursor for severe thunderstorms and tornadoes.



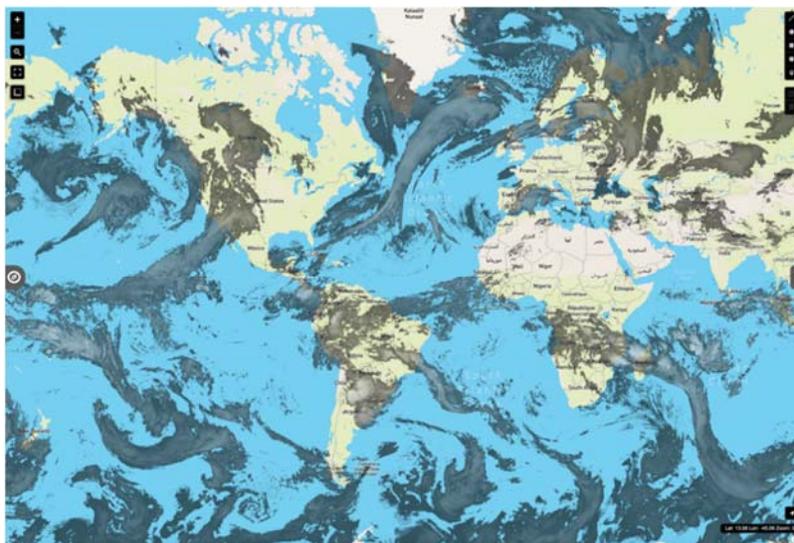
TVS/ETVS: TVS (Tornado Vortex Signature) and ETVS (Elevated Tornado Vortex Signature) indicators determine areas of intense wind shear which can be a precursor for tornadoes. ETVS indicators determine intense wind shear in upper elevations in the atmosphere. TVS indicators determine intense wind shear extending to the base of the storm, a strong indication of the potential for a tornado.



Storm Cell Info: Displays the speed in knots and direction of storm cells associated with NWS Severe Thunderstorm and Tornado Warnings (Continental United States only).



Global IR Satellite: The current infrared satellite (available during the day or night), displaying cloud cover (available globally).



European IR Satellite: The current infrared satellite (available during the day or night), displaying cloud cover (Europe only).



North America IR Satellite: The current infrared satellite (available during the day or night), displaying cloud cover (United States, Canada, Mexico, and Central America only).

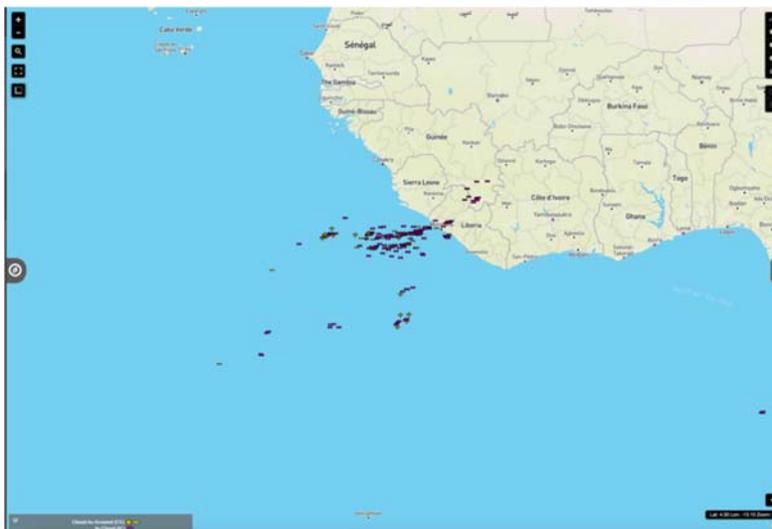


North America Visible Satellite: The current visible satellite (available during the day only), displaying cloud cover (United States, Canada, Mexico, and Central America only).

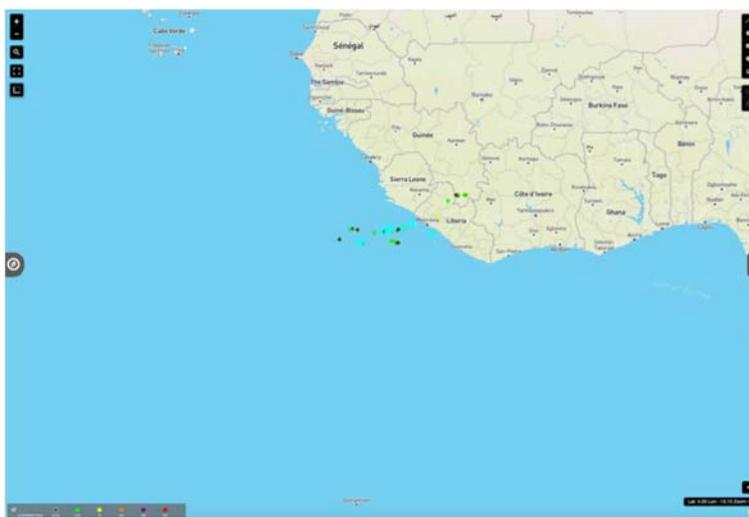


10.5 Lightning

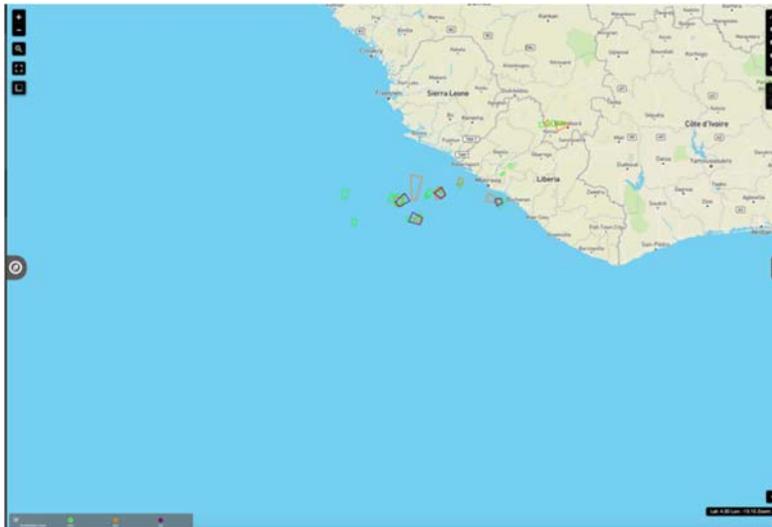
Lightning: Current lightning data from the exclusive Earth Networks Total Lightning Network (available globally). Lightning type can be viewed as a Flash or Pulse. Lightning times can be viewed over the past 1, 5, 15, 30, and 60 minutes. Lightning classification can be viewed as Cloud To Ground, In Cloud, or Both. More information about the Earth Networks Total Lightning Network is [available here](#).



Lightning Cell Tracks: The current path and direction of lightning strikes using lightning data from the exclusive Earth Networks Total Lightning Network. Lightning flashes per minute are displayed on a color scale ranging from 2.5 to 50 (available globally).



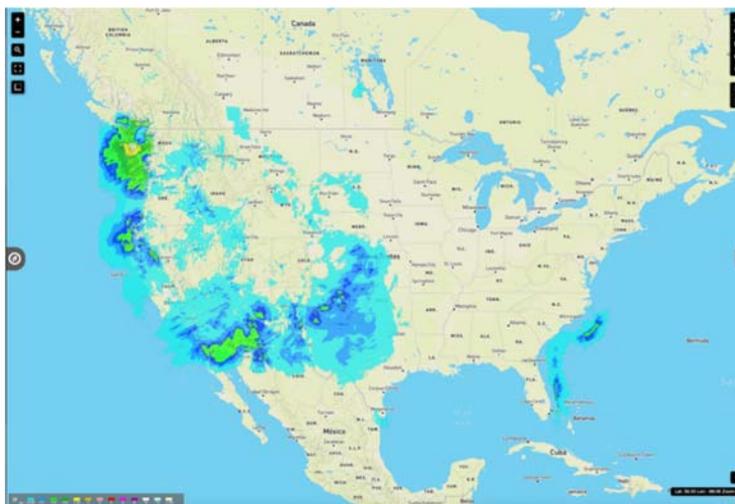
Lightning Polygons: A polygon with vertices around the area of the severe weather *for the duration of the alert*. The alerted area's severe weather is related to a lightning cell with various rates of lightning (available globally).



10.6 Severe Weather

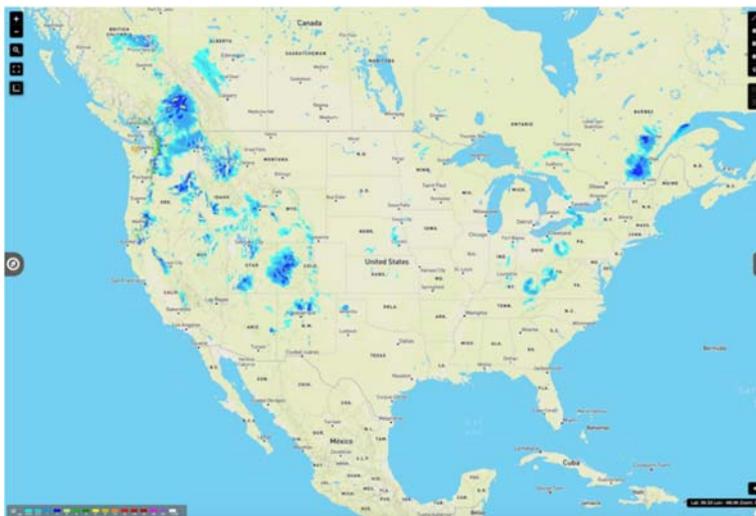
Rain Water Accumulation

Rain accumulations over the past 1, 3, 6, 12, and 24 hours estimated from radar (Continental United States only). Layers have different default opacities to allow for visual distinction when multiple are enabled. Older layers are more transparent.



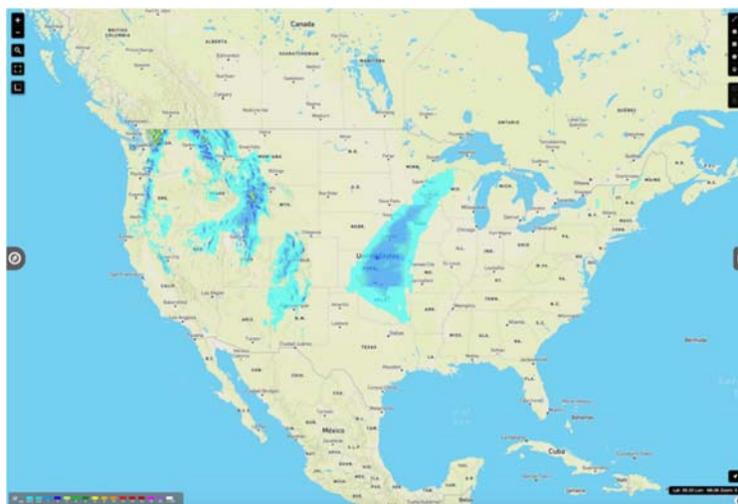
Snow Amount

Snow accumulations over the past 1, 3, 6, 12, and 24 hours estimated from radar (Continental United States only). Layers have different default opacities to allow for visual distinction when multiple are enabled. Older layers are more transparent.



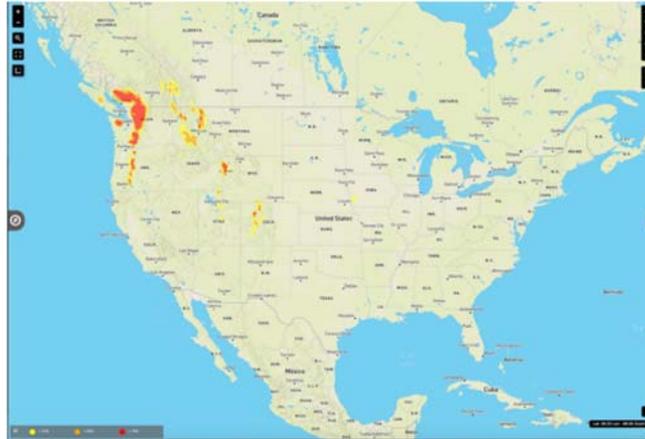
Snow Amount Forecast

A weather forecast model from the NWS showing snowfall amount possibilities over the next 0-6, 6-12, 12-18, and 18-24 hours, measured in inches (United States only).



Snow Probability Forecast

A weather forecast model from the NWS showing the probability of snow over the next 0-24, 25-48, and 49-72 hours in increments greater than 4, 8, or 12 inches, measured in percentages (United States only).

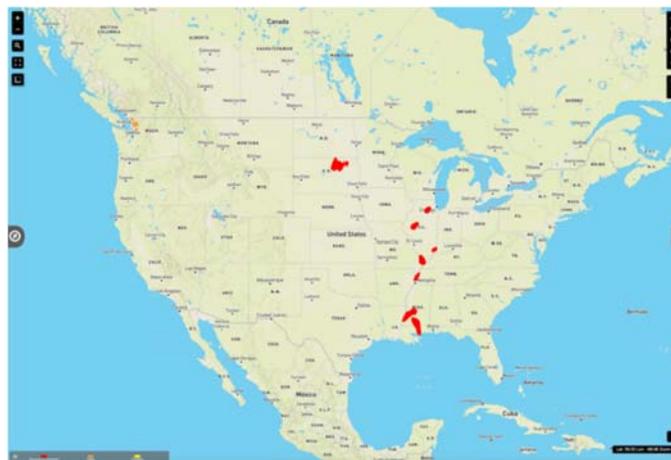


Freezing Rain Probability Forecast

A weather forecast model showing the probability of freezing rain greater than .25" over the next 0-24, 25-48, or 49-72 hours, measured in percentages (United States only).

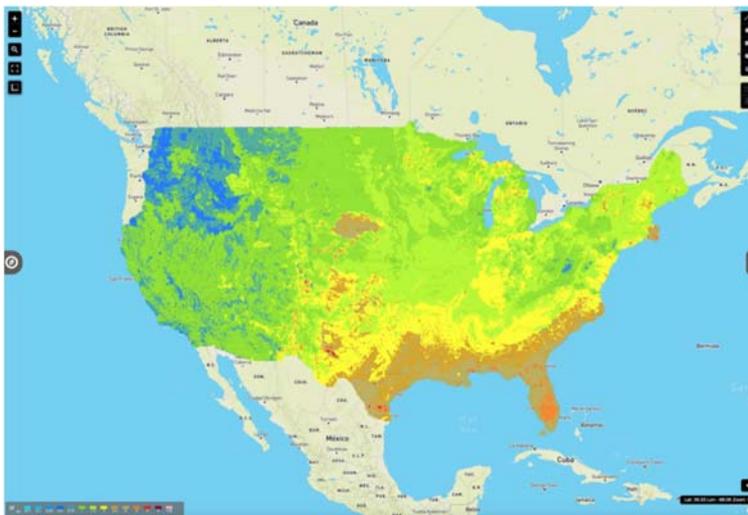
Significant River Flood Outlook

A general outlook for significant river flooding (data from the NWS Hydrometeorological Prediction Center). Red indicates occurring or imminent significant flooding. Orange indicates likely significant river flooding. Yellow indicates possible river flooding (United States Only).



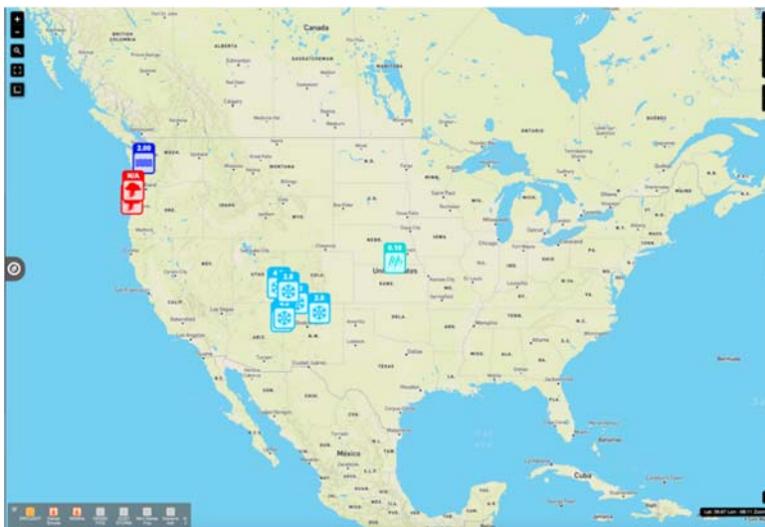
Flash Flood Guidance

Estimates the average number of inches of rainfall for given durations required to produce flash flooding (data from the NWS River Forecast Centers by county, guidance is based on current soil moisture conditions). Available for one, three, six, twelve, and twenty-four-hour durations (United States Only).



Local Storm Reports

Current storm reports from the National Weather Service SKYWARN storm spotter program (United States only).



Storm reports can be narrowed down to only display the following categories:

- Coastal
- Severe
- Wind
- Flood
- Temperature
- Winter
- Other

Clicking on a storm report displays additional information concerning the storm report under *Map Data*.

10.7 Tropical

Atlantic-Active Storms: A look at the current active tropical-related storms in the Atlantic from the National Hurricane Center (available in the Atlantic Ocean region only).

Atlantic-Historical Storms: A look at previous tropical-related storms in the Atlantic from the National Hurricane Center from this last season (available in the Atlantic Ocean region only).



10.8 Alerts

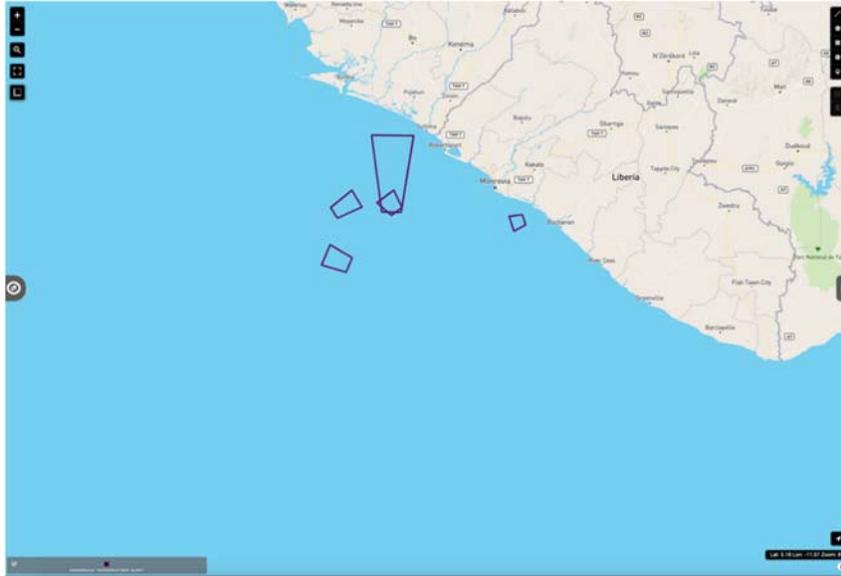
National Weather Service Weather Alerts (United States only)



NWS alerts can be displayed using the following categories:

- *Most Recent*: Shows the most recently issued alert from the NWS for the location. Sometimes there are multiple alerts out for locations (the alert layers do not show more than one alert at a time) so the “most recent” will show the one that was more recently updated. There is no time frame for how long alerts would show except the expire time set by NWS.
- *Civil Emergency*: Alerts related to the overall civil safety of citizens
- *Coastal*: Alerts related to marine and boating in coastal areas
- *Tropical*: Alerts related to tropical weather such as Tropical Storms or Hurricanes
- *Fire*: Alerts related to fire dangers during extreme dry conditions
- *Non-Precipitation*: Alerts not involving precipitation such as a Lake Wind Advisory
- *Winter*: Alerts related to winter weather such as a Winter Weather Advisory or Winter Storm Warning
- *Flood*: Alerts related to flooding such as a Flood Advisory
- *Severe*: Alerts related to severe weather such as a Severe Thunderstorm Warning or Tornado Warning
- *Special Weather Statements*: Not alerts. They are meant to inform the public on a unique weather situation that is not quite reaching alert criteria. They can be on virtually anything – gusty winds, heavy rain, snow, fog, blowing dust, smoke, etc.

Earth Networks DTA: Earth Networks Dangerous Thunderstorm Alerts (DTA) are weather alerts based on the Earth Networks Total Lightning Network providing approximately 45 minutes of advanced warning to major severe weather events, 50% faster than traditional severe weather alerts. Displays on the map as purple polygons (available globally, exclusive to Earth Networks). More information about Earth Networks DTA is [available here](#).



10.9 Contours

The majority of the weather data map layers available in Sferic Maps are available as **contours**, which are graphical representations of various weather data layers. Current Observation data layers are also available as **points**, which are numerical representations of the observation data layers.



10.10 Observation Data Points Legend



Sferic Maps includes four different sources of observation data points: National Met Service, MesoNet, Earth Networks, and Earth Networks Cam. Below is a detailed description of each data source:

National Met Service: The National Met Service includes public weather data sources from the National Weather Service and other international weather agencies, including: METAR, SYNOP, BUOY, and C-MAN.

MesoNet: A MesoNet is defined by the National Weather Service as “a regional network of observing stations (usually surface stations) designed to diagnose mesoscale weather features and their associated processes.” (Source: [NWS Glossary](#))

Earth Networks: The exclusive Earth Networks [weather network](#), a global, real-time network of commercial-grade [weather stations](#). Sferic Maps is the only enterprise weather visualization platform to include access to Earth Networks observations out-of-the-box. Camera images displayed in the Online Weather Center for an Earth Networks weather station without a camera will display the active camera closest to the weather station.

Earth Networks Cam: The exclusive Earth Networks [weather network](#), a global, real-time network of commercial-grade [weather stations](#). Sferic Maps is the only enterprise weather visualization platform to include access to Earth Networks observations out-of-the-box. Camera images displayed in the Online Weather Center for an Earth Networks weather station with a [weather camera](#) will display the active camera for the weather station.

Observations from NWS CWOP/MADIS weather stations may also be available to Sferic Maps in a future update.

11 Working with Map Data

Sferic Maps allows customers to select points of weather data map layers (such as observations, storm tracks, lightning cell tracks, and storm reports) to receive additional informative map data. To access map data for select points of weather data map layers, customers will want to perform the following steps:

1. Add a weather data map layer that supports map data to the top of the map layer list (this example will use temperature points).



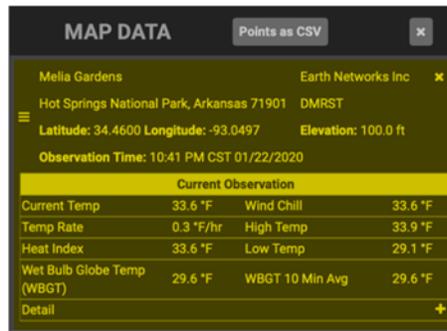
2. Click to expand the **Workspace** from the right-hand side of the screen.



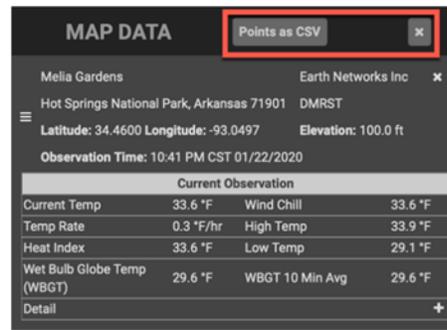
3. Select one of the weather map layer points (this example will select one of the temperature points).



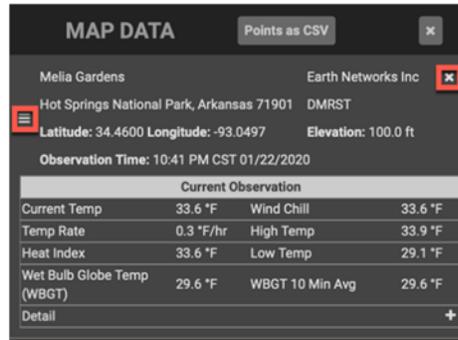
4. The map data from the selected point will appear in the **Map Data** tab of the **Workspace** on the right-hand side of the screen. Multiple data points can be selected to add additional map data to the **Map Data** tab.



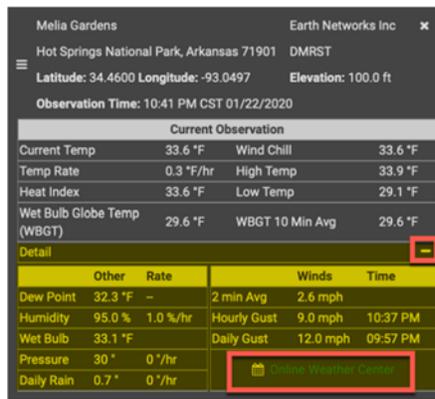
5. To export map data points as a CSV file, select **Export as CSV** from the top of the **Map Data** tab on the **Workspace** at the right-hand side of the screen. To clear all map data points, select **Clear All Map Data** from the top of the **Map Data** tab.



6. To re-arrange map data points, click and drag the **re-arrange icon** to the customer's desired position. To remove an individual map data point, select the **remove map data point** icon next to the map data point the customer wishes to remove.



7. Current observation map data points allow to toggle to view or hide extended detail by clicking the **toggle icon** next to **Detail** in the current observation map data point. **Note that this data DOES NOT UPDATE and is static from the time of selection.** Customers can view additional details for a current observation map data point by clicking on **Online Weather Center**, which brings up the Online Weather Center page for the current observation map data point.



When clicking on a **Lightning Cell Track** map layer, the **Cell Track** information displays in the **Map Data** tab.

Cell: EAF202001230401001 01/23/2020 06:02 AM SAST	
Alert Level	1
Cell Area	8.2 miles ²
IC Rate	3 flash/min
CG Rate	0.3 flash/min
Direction	90
Speed	30.0 mph
History	+
Cell: EAF202001230440001 01/23/2020 06:50 AM SAST	
Alert Level	0
Cell Area	14.1 miles ²
IC Rate	2.7 flash/min
CG Rate	0.7 flash/min
Direction	226
Speed	14.1 mph
History	+

Select the **plus** button to display a table of additional lightning cell track history.

Cell: EAF202001230401001 01/23/2020 06:02 AM SAST				
Alert Level	1			
Cell Area	8.2 miles ²			
IC Rate	3 flash/min			
CG Rate	0.3 flash/min			
Direction	90			
Speed	30.0 mph			
History	-			
Time	Cell Area Miles ²	IC Flash Rate Flash/min	CG Flash Rate Flash/min	Total Flash Rate Flash/min
06:02 AM	8.2	3	0.3	3.3
06:03 AM	6.9	2.7	0.7	3.3
06:04 AM	38.5	5	2.7	7.7
06:05 AM	38.1	4	3	7
06:06 AM	35.3	3.3	3.7	7

Customers can also select **History** to display a more detailed table, as well as a detailed chart of lightning cell track history. The table can be copied or exported, and customers can choose between a line, column, or area chart.



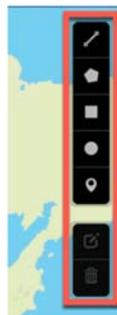
11.1 Using the Drawing Tools

Sferic Maps includes a range of drawing tools available to customers. Customers can currently use the following drawing tools in Sferic Maps:

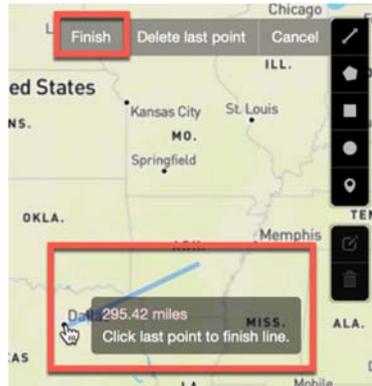
- Polyline
- Polygon
- Rectangle
- Circle
- Marker

To use one of the drawing tools in Sferic Maps:

1. Select one of the drawing tools in the upper right-hand portion of the screen (this tutorial will use the polyline).

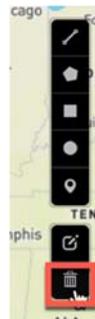


2. Click anywhere on the map to start drawing. Drag the mouse and click again to continue the drawing. Select **Finish** in the upper right portion of the screen when finished drawing (The Finish option is not available and not needed for rectangle, circle, or marker).

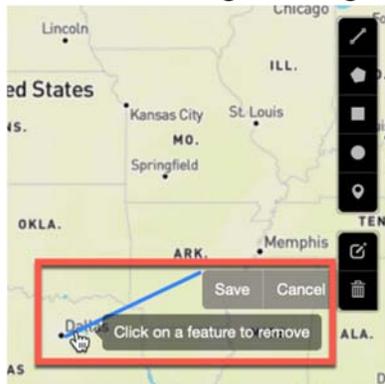


To delete a drawing in Sferic Maps:

1. Select the **Delete Layers** button in the upper right-hand portion of the screen.



2. Select the drawing on the map to delete the drawing. Select **Save** in the upper right-hand portion of the screen when finished deleting drawings.



Drawing tools can also be saved as **Custom Layers** in Sferic Maps. To learn more about saving drawing tools as custom layers, see this [Earth Networks support video](#). To learn more about custom layers, see *Working with Custom Layers*.

Customers can choose between **English** and **Metric** units for displaying the distance measurements in the drawing tools using the **Settings** panel in the upper-right portion of the screen.



Settings

Language English

Unit Type English

DateTime Format MM/dd/yyyy hh:mm:ss

Hour Format 12 Hour

Save Cancel

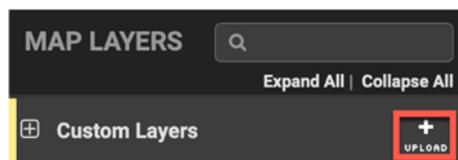
12 Working with Custom Layers

In addition to the weather data map layers included in Sferic Maps, customers can add a variety of custom layers to Sferic Maps using GeoJSON code, GeoJSON files, or shapefiles (uploaded in ZIP format). Drawing tools can also be saved as custom layers (for more information, see *Using the Drawing Tools*). To add and use custom layers in Sferic Maps, customers will want to perform the following steps:

1. Click to expand the **Map Layers** panel on the left-hand portion of the screen.

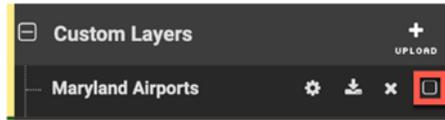


2. Select the **Upload** button next to the **Custom Layers** section of the **Map Layers** panel.

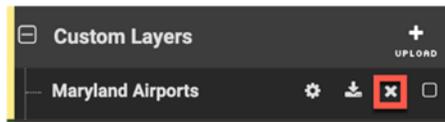


3. A traditional computer file manager dialog box will appear, allowing the user to browse to and select and choose the custom layer file to upload. This dialog box will vary in design between a Mac and a Windows PC.

4. To view the custom layer on the map, click to select the check box next to the custom layer. To remove a custom layer from the map, click to de-select the check box next to the custom layer. Custom layers can also be edited or downloaded from the Custom Layers panel.



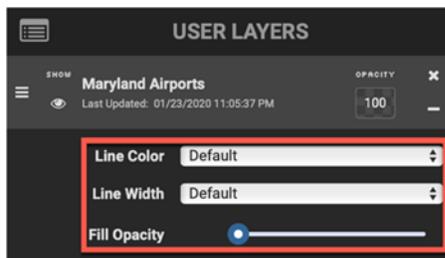
5. To remove a custom layer, select the **Delete Layer** button next to a custom layer needing removing. Customers will be prompted to confirm deleting custom layers.



6. Some custom layers can display information in the **Map Data** panel on the right-hand portion of the screen by clicking on points in a custom layer.



7. Some custom layers colors, line width, and opacity can be adjusted using the **User Data** tab in the workspace (for more information, see *Working with User Data*).



12.1 Upload Limits to Custom Layers

The following upload limits apply to custom layers:

- 30 MB for GeoJSON files
- 10 MB for ShapeFile format files

The majority of Sferic Maps customers upload custom layers with file sizes somewhat smaller than the above upload limits, so Sferic Maps customers should be able to easily upload custom layers within the upload limits.

12.2 Editing GeoJSON Code

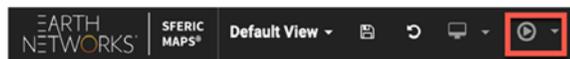
Editing GeoJSON code within Sferic Maps is only available with custom layers created from the drawing tools.

To edit a custom layer’s GeoJSON code created from an uploaded GeoJSON file, the customer must download the file, make the edits, and re-upload the file back into Sferic Maps.

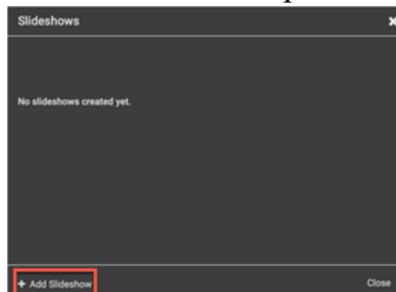
13 Creating Custom Slideshows

Sferic Maps allows customers to create custom slideshows of saved custom views, allowing customers to automatically transition between custom views using a specified interval. To create a custom slideshow, customers will want to complete the following steps:

1. Select the **Slideshows** button on the main toolbar.



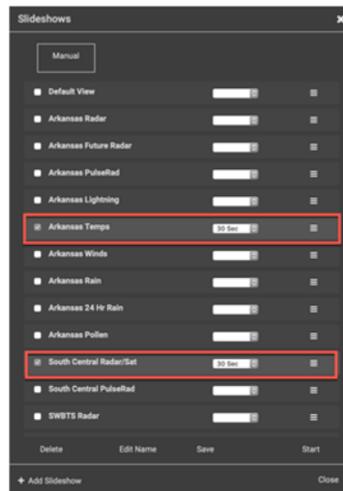
2. Select the **Add** button in the bottom left-hand portion of the **Slideshows** dialog box.



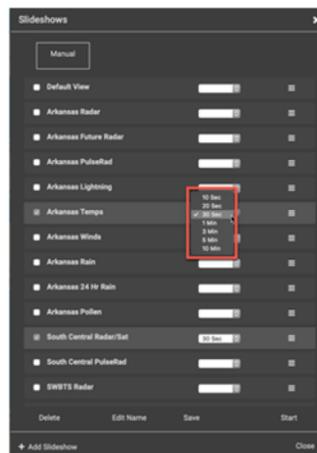
3. Name the custom slideshow in the top portion of the **Slideshows** dialog box.



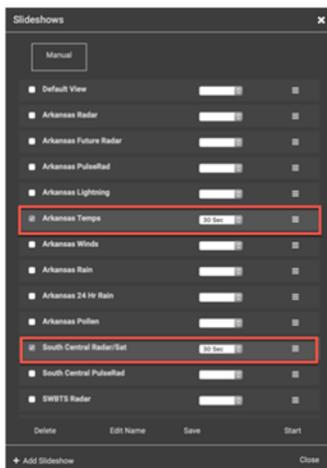
4. Use the checkboxes next to the saved custom views to select the saved custom views the customer wishes to include in the slideshow.



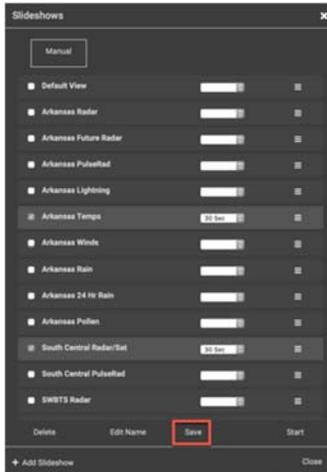
5. Use the interval drop down menus next to the saved custom views to select the desired interval between 10 seconds and 10 minutes to select the interval for which saved custom views will transition. Each saved custom view can select a different interval if desired.



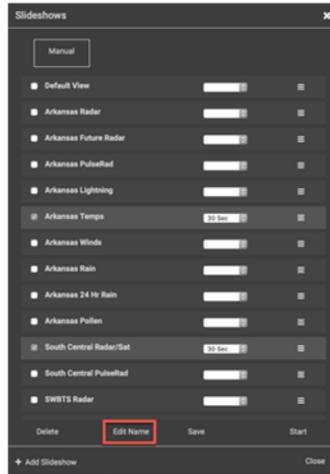
6. To re-arrange saved custom views in the slideshow order, click and drag the re-arrange icon next to a saved custom view to move that view into the order preferred by the customer.



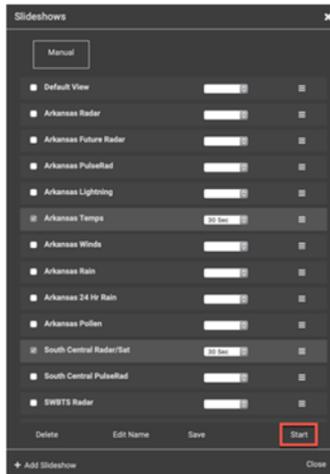
7. To save a custom slideshow, select the **Save** button near the bottom of the **Slideshows** dialog box.



8. To edit a custom slideshow name, select the **Edit Name** button near the bottom of the **Slideshows** dialog box.

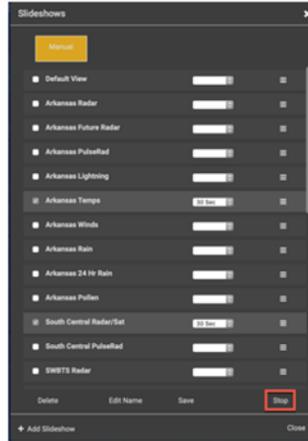


9. To start a custom slideshow, select the **Start** button near the bottom of the **Slideshows** dialog box.

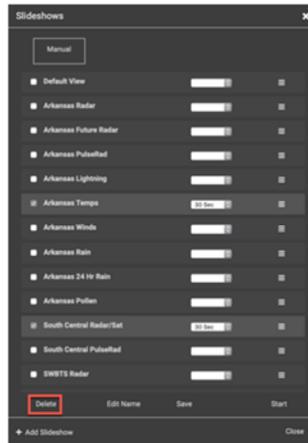


10. To stop a custom slideshow, select the **Slideshows** button on the main toolbar, then select the **Stop** button near the bottom of the **Slideshows** dialog box.





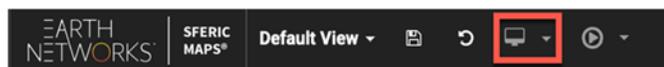
11. To delete a custom slideshow, select the **Delete** button near the bottom of the **Slideshows** dialog box.



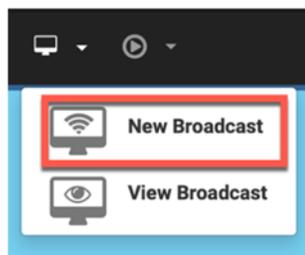
14 Using Broadcast Collaboration Features

Sferic Maps includes a built-in collaboration feature that allows customers to broadcast their Sferic Maps screen to other colleagues who are currently signed into a Sferic Maps account. No additional third-party software is needed, and no software installation is required to use these features. To use the built-in broadcast collaboration features in Sferic Maps, customers will want to complete the following steps.

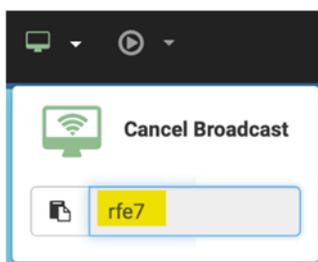
1. The broadcaster will select the **Collaboration** button on the main toolbar.



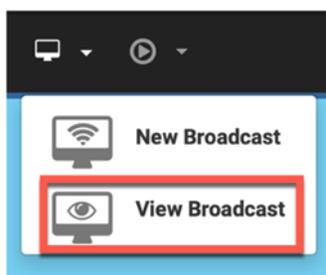
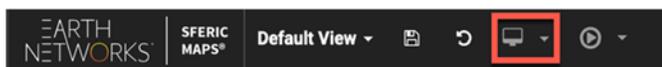
2. Click on **New Broadcast**.



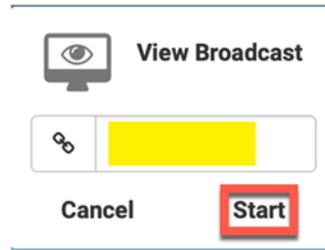
3. An alphanumeric code consisting of four characters appears. Customers will want to copy the code and give it to other colleagues signed into Sferic Maps who need to join in the broadcast.



4. Colleagues signed into Sferic Maps who need to join in the broadcast should select the **Collaboration** button on the main toolbar, then select **View Broadcast**.



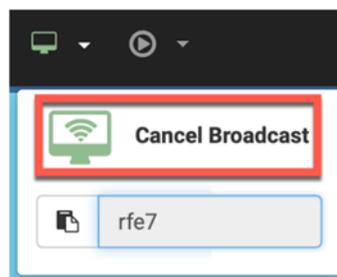
5. Colleagues will then paste in the four-character alphanumeric code, then select **Start**, to join the broadcast.



6. Everything the customer who has initiated the broadcast does in Sferic Maps (zooming/panning, map layers, animations, etc.) will automatically be mirrored to other colleagues signed into Sferic Maps who have joined the broadcast.



7. To end the broadcast, select **Cancel Broadcast**.



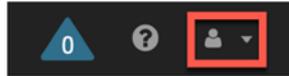
Taking Screenshots of Sferic Maps

The collaboration tools included in Sferic Maps are limited to streaming one’s Sferic Maps screen among colleagues who are currently signed into a Sferic Maps account. In order to live-stream one’s Sferic Maps screen to a wide audience, as well as to capture screenshots or screencasts from Sferic Maps, a customer will need to utilize a third-party solution.

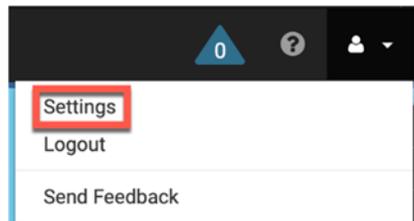
15 Customizing Sferic Maps Settings

Sferic Maps offers customers the ability to customize specific settings (including language and units). To customize settings, customers will want to perform the following steps:

1. Select the **User** icon in the upper right corner of the screen.

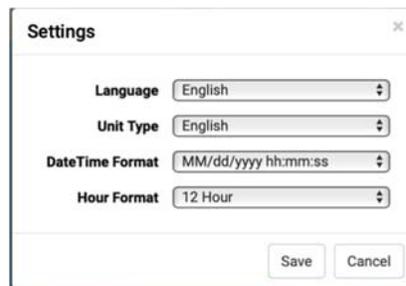


2. Select **Settings**.



3. Customers can choose from the following settings:

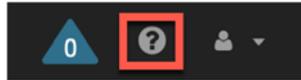
- Language
- Unit Type (English or Metric)
- Date/Time Format (Month/Day/Year Hours:Minutes:Seconds or Day/Month/Year Hours:Minutes:Seconds)
- Hour Format (twelve or twenty-four hour format)



16 Help for Sferic Maps

Sferic Maps has articles and training videos accessible within the tool. To access such:

1. Select the question mark to the left of the User icon



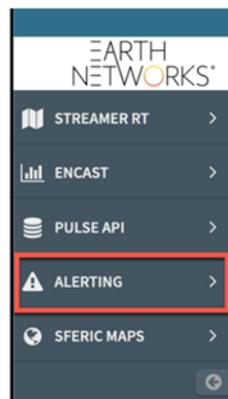
2. This will take you to the Support page where articles, documentation, and training videos may be found.



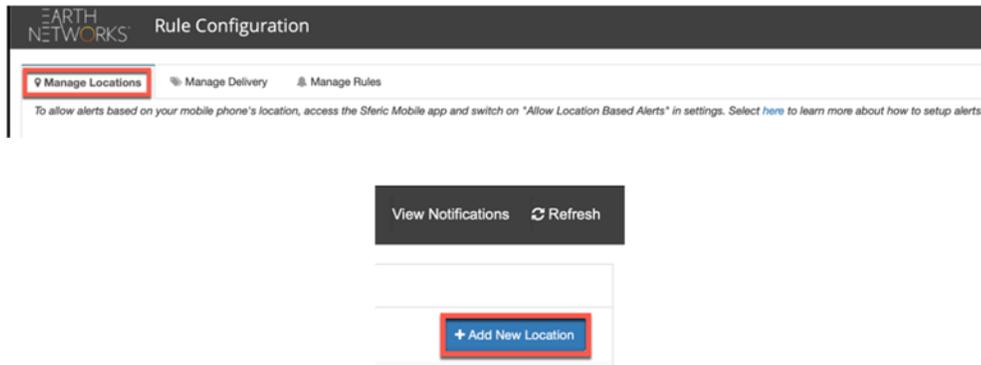
17 Setting up Alert Notifications in Sferic Maps Alerting

Sferic Maps allows customers to send custom alerts over email, text message (by formatting the phone number as an email address), or as a push notification to smartphones running Sferic Mobile. To setup custom alert notifications in Sferic Maps Alerting, customers will want to complete the following steps:

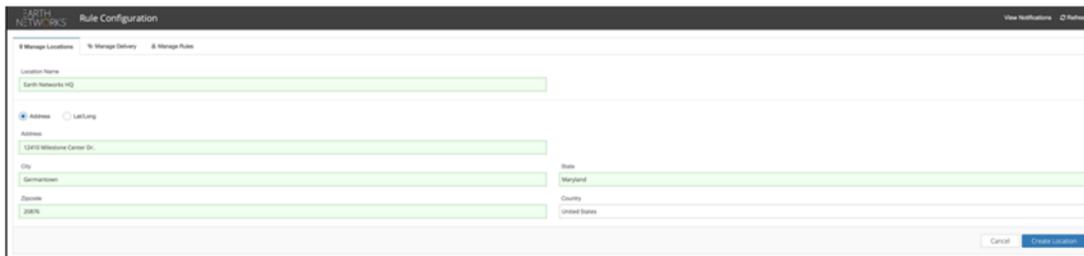
1. Sign into the **Earth Networks Enterprise Portal** at <https://profile.earthnetworks.com>. Select **Alerting** on the left-hand sidebar.



2. Under the **Notification Configuration** screen, click to ensure the **Manage Locations** screen is selected. Select **Add New Location**. Customers can add multiple locations to the **Manage Locations** screen.



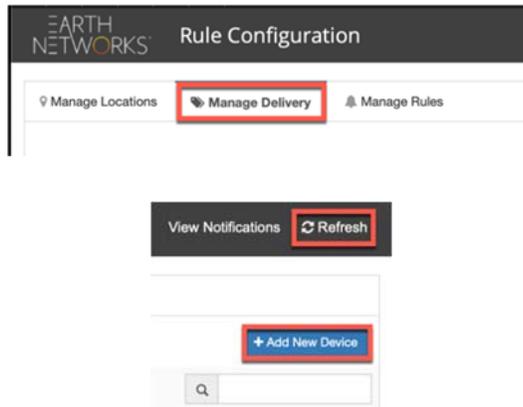
3. Enter the location name in the **Name Location** text box. Customers can enter locations either as an **Address** or as a **Lat/Lon**. Locations entered as a **Lat/Lon** are generally more precise (although this tutorial will use an address). Select the radio button for either **Address** or **Lat/Lon** depending on the customer's preference. Enter in the address or Lat/Lon coordinates (or click on the map to drop the pin on the location) or address, then select **Create Location**.



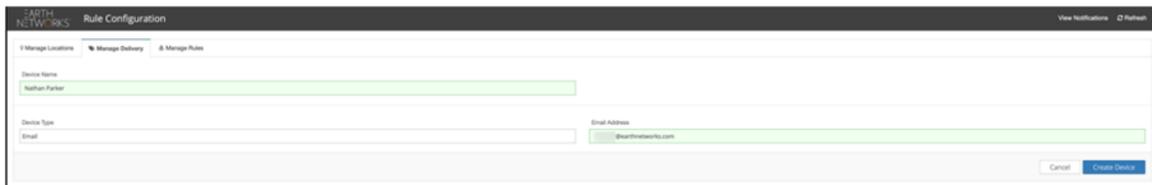
4. The location is added to the **Manage Locations** screen. To edit a location, select the **Edit Location** button next to the location needing editing. To remove a location, select the **Delete Location** button next to the location needing removing. Customers can also filter the minimum amount of locations that appear on each page of the **Manage Locations** screen, as well as search for locations.



5. Select the **Manage Delivery** tab. Any smartphones logged into the Sferic Mobile app will automatically appear on the list. If a smartphone logged into the Sferic Mobile app is not displaying in the list, log out of Sferic Mobile and then log back in, then select **Refresh** in Sferic Maps to refresh the list of devices. To add an email address or text message phone number (by formatting the phone number as an email address), select **Add New Device**.



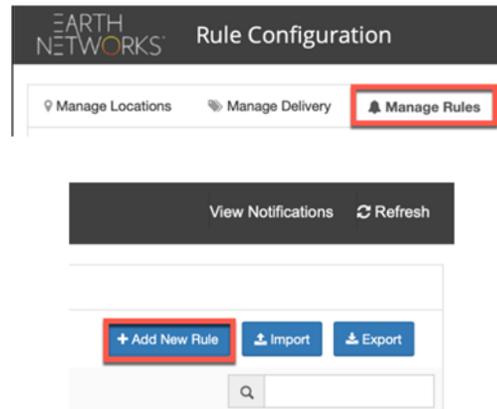
6. Enter a descriptive or recognizable name for the email address (such as a person's name) into the **Name Device** text box. Enter the email address or text message phone number (by formatting the phone number as an email address) in the Email Address text box. Select **Create Device**.



7. The email address is added to the **Manage Delivery** tab. To edit an email address, select the **Edit Device** button next to the email address that needs to be edited. To remove an email address or a device that was previously signed into Sferic Mobile, select the **Delete Device** button next to the email address or device needing removing. Customers can also filter the minimum amount of email addresses and/or devices that appear on each page of the **Manage Delivery** tab, as well as search for email addresses or devices.



8. Select the **Manage Rules** tab. Select **Add New Rule**.



9. There are three categories of rules available to Sferic Maps alerting customers:
- a. **Observation:** Observation alerts allow Sferic Maps Alerting customers to set custom alerts concerning various weather observation parameters from the exclusive Earth Networks weather network. Customers can choose the radius distance from the custom location from which to capture weather stations, as well as the threshold to be exceeded when issuing the alert. These alerts are available as long as a viable station falls within the radius distance.
 - b. **Weather Service:** Weather Service alerts are issued by the National Weather Service (United States only), as well as Earth Networks Dangerous Thunderstorm Alerts (available globally). Earth Networks Dangerous Thunderstorm Alerts (DTA) are weather alerts based on the Earth Networks Total Lightning Network providing approximately 45 minutes of advanced warning to major severe weather events, 50% faster than traditional severe weather alerts. More information about Earth Networks DTA is [available here](#). Customers can also choose to include watches in addition to warnings with many of the NWS major weather alert categories.
 - c. **Lightning:** Lightning alerts allow customers to set custom alerts when lightning occurs within the radius distance of the custom location, as well as the duration of how long there must be no lightning in the radius till an all clear is issued. Customers can also choose to send an All Clear message when lightning has not been detected in the radius distance based on the duration specified. Lightning alerts are provided by the exclusive Earth Networks Total Lightning Network. More information about the Earth Networks Total Lightning Network is [available here](#).

17.1 Receive Alerts via Text Message

Sferic Maps Alerting customers can receive configured alerts via text message by having an email sent to one's mobile phone as a text message. To do so, setup the email in the following format based on the mobile carrier of the recipient.

United States Wireless Carriers:

AT&T: phonenumber@txt.att.net

Cricket: phonenumber@mms.cricketwireless.net

Metro by T-Mobile: phonenumber@metropcs.sms.us

Sprint: phonenumber@messaging.sprintpcs.com

T-Mobile: phonenumber@tmomail.net

Verizon: phonenumber@vtext.com

Virgin Mobile: phonenumber@vmobl.com

Example:

Phone number: 123-456-7890

Carrier: Verizon

Email format to use: 1234567890@vtext.com

Note: Some wireless carriers require adding a "1" in front of the number when formatting the email address. If formatting the email address without the additional "1" fails to send alert messages, try re-formatting the email address by adding the additional "1" in front of the number.

Sferic Maps Alerting customers located in international (non-United States) locations will need to contact their wireless carrier to determine the recommended email format for setting up text messages by email.

18 Setting Alert Silence Times

Sferic Maps Alerting customers can set alert silence times for any of the custom alert rules by selecting **Set Silence Times** when creating or editing an alert rule at the bottom of the page using **Manage Rules**. Silence times are created for each alert rule. **There is not currently a method allowing customers to set a silence time for all alert rules at once.**



Silence time hours are **local to the time zone of the alert rule's location**, which may not be the location from which the customer has signed into Sferic Maps Alerting to set alert silence times.

Example 1: If a customer does not wish to receive alerts from 8 PM Monday evening to 9 AM Tuesday morning, the customer would configure the following settings:



Note: Hours do not cross over to the next day. Due to the cross over in this example, the silence times require two entries (one under each day). Each day is self-contained.

Example 2: If a customer does not wish to receive alerts at all on a particular day; the silence time for that day would be set from 12 AM to 12 AM:



Example 3: If a customer does not wish receive alerts until 8 AM on weekdays and does not wish to receive alerts from 7 PM until the following next morning, as well as no alerts on the weekends, the customer would configure the following settings:



19 Weather Alert Types Included in Sferic Maps Alerting

Sferic Maps Alerting includes the following weather alert types:

19.1 Observation

Observation alerts allow Sferic Maps Alerting customers to set custom alerts concerning various weather observation parameters from the exclusive Earth Networks weather network. Customers can choose the radius distance from the custom location to capture weather stations, as well as the threshold exceeded on when to issue the alert. These alerts (except for Wet Bulb Globe Temperature) are available globally. The following weather observation parameters are available in Sferic Maps Alerting:

- Outdoor Temperature
- Outdoor Temperature Rate
- Heat Index
- Wind Chill
- Dew Point
- Wet Bulb Temperature
- Wind Speed
- Peak Wind Gust (Hourly)
- Peak Wind Gust (Daily)
- Humidity
- Humidity Rate
- Daily Rain
- Rain Rate
- Pressure
- Pressure Rate
- Solar
- Solar Rate
- Wet Bulb Globe Temperature 10 Minute Average (available as a separate add-on)

19.2 Weather Service

Weather Service alerts are issued by the National Weather Service (United States only), as well as the Earth Networks Dangerous Thunderstorm Alert (available globally). Customers can also choose to include watches in addition to warnings with many of the major weather alert categories. The following weather service alerts are available in Sferic Maps Alerting:

19.3 Earth Networks

Severe:

Dangerous Thunderstorm Alert: Earth Networks Dangerous Thunderstorm Alerts (DTA) are weather alerts based on the Earth Networks Total Lightning Network providing approximately 45 minutes of advanced warning to major severe weather events, 50% faster than traditional severe weather alerts. More information about Earth Networks DTA is [available here](#).

National Weather Service:

Severe:

- Flash Flood
- Severe Thunderstorm
- Tornado

Flood:

- Areal Flood
- Coastal Flood
- Flood
- Hydrologic
- Lakeshore Flood
- Low Water

Winter:

- Blizzard
- Blowing Snow
- Extreme Cold
- Freezing Rain
- Heavy Snow
- Ice Accretion
- Ice Storm
- Lake Effect Snow
- Lake Effect Snow and Blowing Snow
- Sleet
- Snow
- Snow and Blowing Snow
- Snow Squall
- Wind Chill
- Winter Storm
- Winter Weather

Non-Precipitation:

- Air Stagnation

Ashfall
Blowing Dust
Brisk Wind
Dense Fog
Dense Smoke
Dust Storm
Excessive Heat
Extreme Wind
Freeze
Freezing Fog
Frost
Hard Freeze
Heat
High Wind
Lake Wind
Wind
Air Quality Alert

Fire:
Fire Weather

Tropical:
Hurricane
Hurricane Force Wind
Inland Hurricane
Inland Tropical Storm
Tropical Storm
Typhoon
Hurricane Local Statement

Coastal:
Beach Hazard
High Surf
Rip Current
Storm Surge
Tsunami

Civil Emergency Messages:
Special Weather Statement
Avalanche Warning
Avalanche Watch
Child Abduction Emergency
Civil Danger Warning

Civil Emergency Message
Evacuation Immediate
Hazardous Materials Warning
Law Enforcement Warning
Local Area Emergency
Nuclear Power Plant Warning
Radiological Hazard Warning
Shelter in Place Warning
Volcano Warning
911 Telephone Outage Emergency

19.4 Lightning

Lightning alerts allow customers to set custom alerts when lightning occurs within the radius distance of the custom location, as well as the duration of how long there must be no lightning in the radius till an all clear is issued. Customers can choose to send an All Clear message when lightning has not been detected in the radius distance based on the duration specified. Lightning alerts are provided by the exclusive Earth Networks Total Lightning Network. More information about the Earth Networks Total Lightning Network is [available here](#).

20 View Alert Locations on Sferic Maps

Alert locations created under the **Manage Locations** tab of Sferic Maps can be displayed on the map in Sferic Maps as a map layer. To view alert locations on the map, customers will want to perform the following steps:

1. Open the **Map Layers** panel on the left-hand side of the screen. Select the check box next to **Your Locations** at the bottom of the list in the Map Layers panel.

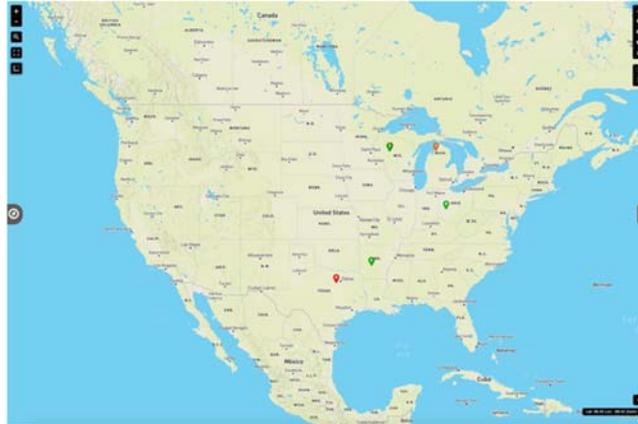


2. The alert locations will be displayed on the map as a series of pins. They are color-coded:

Orange: No active rule associated with location

Green: No active alert at location

Red: Active alert at location



21 Manage Earth Networks Enterprise Portal Users and Subscriptions

Earth Networks Enterprise Portal administrators can manage users and subscriptions via the **Profile Admin** section of the Earth Networks Enterprise Portal. To manage users and subscriptions, customers will want to complete the following steps:

1. Sign into the **Earth Networks Enterprise Portal** at <https://profile.enterprise.earthnetworks.com>.

Sign In

USERNAME*
PASSWORD*

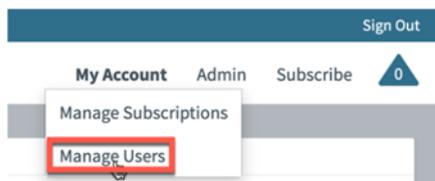
SIGN IN

[Forgot your password?](#)

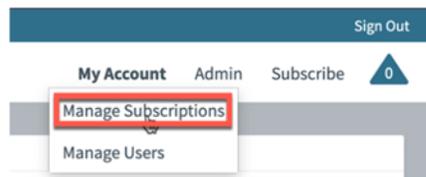
2. If the signed-in user has administrator access privileges, the user can navigate to the **Admin** area to manage subscriptions and users by selecting **Admin** in the upper right-hand corner of the screen.



3. Select **Manage Users** to add users to an Earth Networks Enterprise Portal account for product provisioning. New users can also be created using the **Manage Users** page.



4. Once a user is created in the Earth Networks Enterprise Portal, a user can be provisioned to a product subscription by selecting **Admin** in the upper-right hand corner of the screen. Select **Manage Subscriptions**.



5. Select the product subscription that needs additional users added. Check the box next to their email/name to select them for provisioning. The **Available Seats** field below the columns will indicate how many seats are available for use. Once the appropriate users are selected, select **Save**.

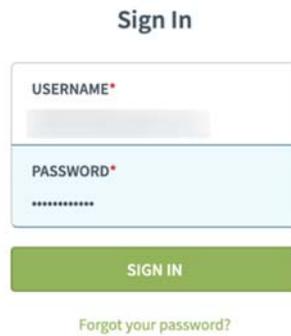


For assistance in provisioning product subscriptions to users, please contact [Earth Networks Support](#).

Updating an Earth Networks Enterprise Portal Email Address

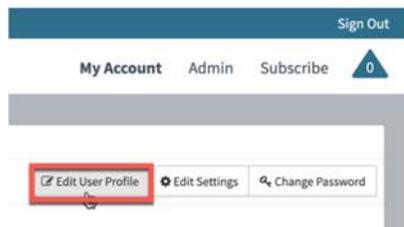
To update the email address associated with an Earth Networks Enterprise Portal account, customers will want to perform the following steps:

1. Sign into the **Earth Networks Enterprise Portal** at <https://login.enterprise.earthnetworks.com>.



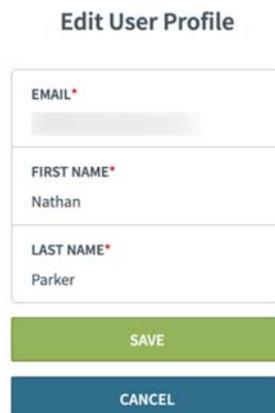
The image shows a 'Sign In' form with two input fields: 'USERNAME*' and 'PASSWORD*'. The password field is masked with dots. Below the fields is a green 'SIGN IN' button and a link for 'Forgot your password?'.

2. Select **Edit User Profile** in the upper right-hand corner of the screen.



The image shows a user account menu with options: 'Sign Out', 'My Account', 'Admin', 'Subscribe', and a notification bell icon with '0'. Below these is a dropdown menu with three options: 'Edit User Profile' (highlighted with a red box), 'Edit Settings', and 'Change Password'.

3. Edit the user's email address. Select **Save**.



The image shows an 'Edit User Profile' form with three input fields: 'EMAIL*', 'FIRST NAME*' (containing 'Nathan'), and 'LAST NAME*' (containing 'Parker'). Below the fields are two buttons: a green 'SAVE' button and a blue 'CANCEL' button.

22 Wet Bulb Globe Temperature (WBGT) (Add On)

Sferic Maps offers the ability for customers to monitor the Wet Bulb Globe Temperature (WBGT). WBGT utilizes ambient temperature, relative humidity, wind, and solar radiation from the sun to compute a composite value that can be used when monitoring environmental conditions during exercise in the heat. This differs from the heat index, which takes into consideration temperature and humidity and is calculated for shady areas.

Customers should note:

- WBGT is a separate addon from the base Sferic Maps subscription. Customers interested in WBGT should contact their Earth Networks sales representative or [contact Earth Networks Sales](#) directly.

SUBSCRIPTIONS	
#	Package
1	Streamer RT Streamer RT subscription
2	Sferic Maps Gold
3	Enterprise Pulse API Pro Enterprise Pulse API Pro
4	Pulse API ENcast
5	ENcast Graphs
6	Sferic Maps WBGT
7	Sferic Connect

WBGT can be displayed on Sferic Maps in both current and ten-minute average variations. To learn more about adding map layers to Sferic Maps, see *Using Map Layers*.



The current and ten-minute average WBGT can also be displayed in the *Map Data* tab for Earth Networks weather stations that support WBGT data. To learn more about working with map data in Sferic Maps, see *Working With Map Data*.

Current Observation			
Current Temp	33.3 °F	Wind Chill	33.3 °F
Temp Rate	-0.2 °F/hr	High Temp	33.9 °F
Heat Index	33.3 °F	Low Temp	29.1 °F
Wet Bulb Globe Temp (WBGT)	29.3 °F	WBGT 10 Min Avg	29.3 °F
Detail +			

Customers can also receive alerts for the ten-minute average using Sferic Maps Alerting. To learn more about Sferic Maps Alerting, see *Configuring Observation Alerts in Sferic Mobile*.

23 Lightning Archive Overview (Add On)

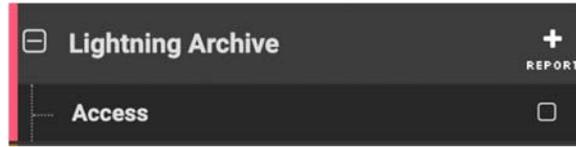
Lightning Archive is an add-on to Sferic Maps. The Lightning Archive allows customers to download archived lightning data from the [Earth Networks Total Lightning Network](#) as a CSV or KMZ file.

Customers will know if they have access to Lightning Archive by seeing Lightning Archive provisioned under subscriptions in the **Earth Networks Enterprise Portal**. For customers who are not provisioned for Lightning Archive and who wish to be provisioned for Lightning Archive, they should [contact Earth Networks](#).

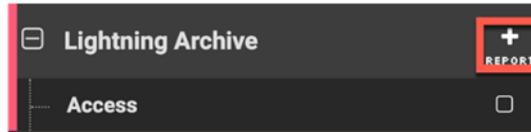


Once provisioned for Lightning Archive, customers access the tool directly inside Sferic Maps using the following steps:

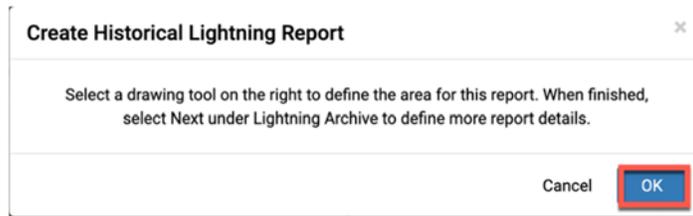
1. Open the **Map Layers** panel from the left side of the screen and select the **Lightning Archive** category.



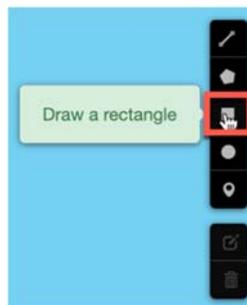
2. Select **Report**.



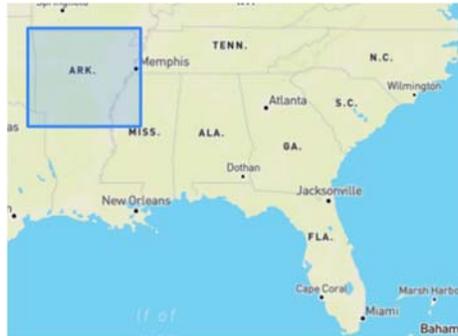
3. Select **OK** in the dialog box that appears.



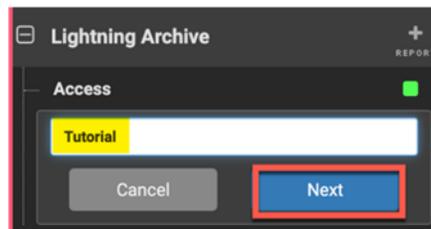
4. Select one of the drawing tools from the upper right corner of the screen. This example will select the **Rectangle** drawing tool.



5. Perform the drawing over the map. This example will draw a rectangle over Arkansas.



6. Give the drawing layer a name if desired (this example will use **Tutorial** for the name) and select **Next** in the **Lightning Archive** section of the **Map Layers** panel.



7. Complete the following parameters in the **Create Historical Lightning Report** dialog box and select **Submit**.

- **Report Name:** This generally matches the name of the drawing layer.
- **Recipient:** The email address where the lightning report should be sent.
- **Time Range:** The date/time range of the lightning in the report. Customers can choose to display the time range in local time or UTC time. When displaying local time, the UTC time equivalent is also given.
- **Lightning Type:** Flash or Pulse.
- **Stroke Type:** Cloud to Ground or In Cloud. To receive the total lightning, check both boxes.
- **Report Format:** CSV or KMZ. KMZ is useful for displaying in Google Earth.
- **Area Definition:** The boundaries of the lightning report. Customers can edit these boundaries to more accurately fine-tune the boundaries by specifying the center point and radius or the vertices to be more specific rather than relying solely on the hand drawing.

Create Historical Lightning Report

Report Name: Tutorial Recipient: [Redacted]

Time Range

Local Time UTC Time UTC Equivalent Time

Start Time: 05/01/2020 12:00 AM UTC: 2020-05-01T05:00:00

End Time: 05/04/2020 12:00 AM UTC: 2020-05-04T05:00:00

Lightning Type: Flash Pulse

Stroke Type: Cloud To Ground In Cloud

Report Format: CSV KMZ

Area Definition

Type	Bounding Box
Upper Left	Lat: 36.5979 Lon: -94.79
Bottom Right	Lat: 33.0639 Lon: -89.8682

Cancel Submit

8. A confirmation dialog will appear stating that the lightning archive report will be emailed to the customer.

Create Historical Lightning Report

You will receive an email with the results.

Close

9. The lightning report will be emailed to the customer. The customer will need to select the link or links to download the lightning report. Lightning report links are active for seven days, at which point the lightning report links will need to be re-generated if the customer needs to re-download the lightning report.

Lightning Archive - [Tutorial]

To: Nathan Parker

Your historical lightning report is ready.

Since the results file is large, it was split into smaller KMZ files for your convenience. You can find the links to the KMZ files in the file below.

Name: Tutorial
Format: KMZ

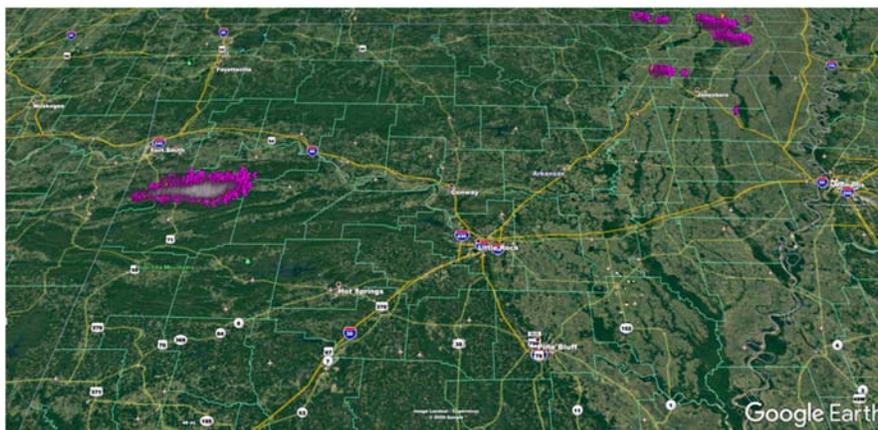
Start Time: 2020-05-01 05:00 AM UTC
End Time: 2020-05-04 05:00 AM UTC

Lightning Type: Pulse
Stroke Type: In Cloud, Cloud to Ground
Additional Options:

Area Definition type : Box
Upper Left: 36.5979, -94.79
Lower Right: 33.0639, -89.8682

Download your report files here. After 7 days, the link(s) will no longer work.
[Tutorial-Part 1](#)

10. The customer will want to view the lightning report file using their CSV file viewer or KMZ file viewer. This example shows an example of viewing a KMZ file using Google Earth Pro.



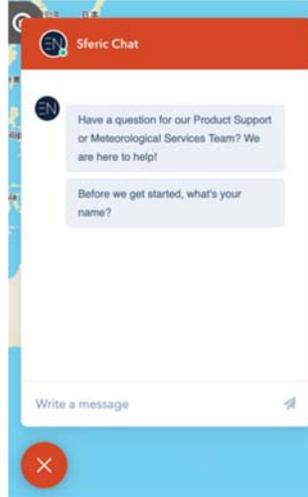
24 Sferic Chat Overview (Add On)

Sferic Chat is an add-on to Sferic Maps and Sferic Mobile. Sferic Chat allows customers to chat with the Earth Networks Customer Success team and Earth Networks Meteorologists directly inside Sferic Maps and Sferic Mobile.

Customers will know if they have access to Sferic Chat by seeing Sferic Chat provisioned under subscriptions in the **Earth Networks Enterprise Portal**. For customers who are not provisioned for Sferic Chat and who wish to be provisioned for Sferic Chat, they should contact [Earth Networks](#).

24.1 Using Sferic Chat in Sferic Maps

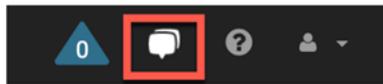
The Sferic Chat box appears in the bottom left corner of Sferic Maps. To get started with chat, customers simply provide their name, then begin chatting with the Earth Networks Customer Success and Earth Networks Meteorologists teams as they would use any other popular chatting app.



To close the Sferic Chat box, select the orange **close** button under the box.



To show or hide the Sferic Chat box in the Sferic Maps interface (useful to hide when taking screenshots or working with the map), select the **show/hide** button in the upper right corner of the toolbar.



24.2 Using Sferic Chat in Sferic Mobile

Sferic Chat also appears as an option in the Sferic Mobile app. Tapping the **Chat** icon in the Sferic Mobile app menu will launch a browser allowing the customer to begin chatting with the Earth Networks Customer Success and Earth Networks Meteorologists teams.

