



WeatherSTEM

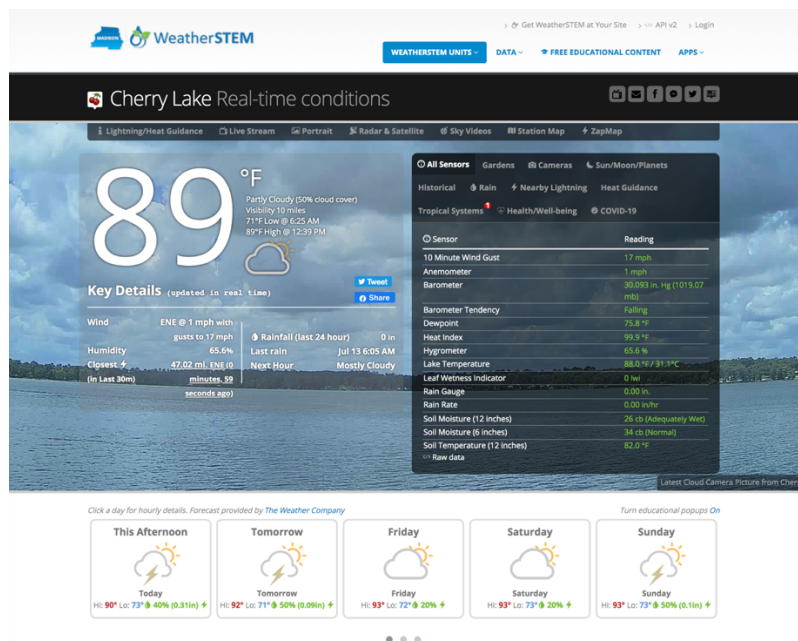
Platform User Guide 2020

Welcome to WeatherSTEM! The following guide will take you step-by-step through the platform's features and options.

ACCESS YOUR WEATHERSTEM WEBPAGE

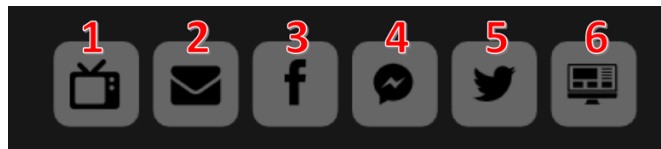
To find your station visit the site inserting your counties name: yourcounty.weatherstem.com

Example: For a location in Leon County, Florida visit leon.weatherstem.com



Your homepage has many features and tabs to explore. Take some time and check them all out!

Top Left Icons



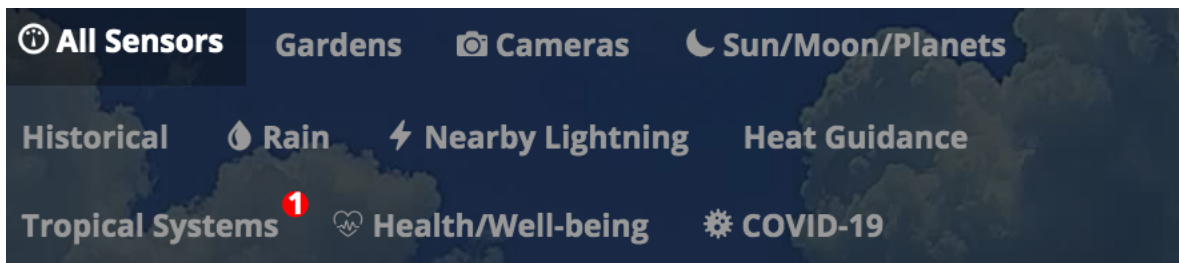
1. **Weather on TV**- View The Weather Channel's Scheduled Programming
2. **Email Your Station**- It will respond with the current conditions
3. **Facebook**- Visit and Like your station's facebook page
4. **Facebook Messenger**- Ask your station questions via facebook messenger
5. **Twitter**- Visit and Follow your station's twitter page
6. **WeatherSTEM Dashboard** quick link- Learn more about this feature on Page 16.

Top Bar Icons

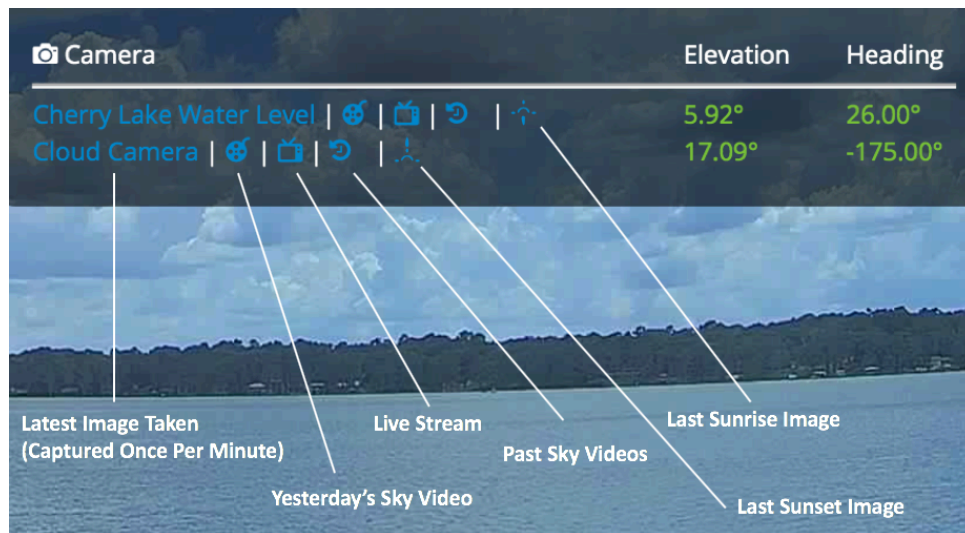


1. **Lightning/Heat Guidance**- This tab will show lightning strikes in the past 30 minutes and Wet Bulb Globe Temperature readings for the past hour. You will also find guidance for these conditions at the bottom of the page provided the [Andrews Institute](#).
2. **Live Stream**- Watch your location in real-time as your camera sends a live feed to your page.
Admin Feature: Record the livestream from this tab.
3. **Portrait**- View your custom painted station's picture here.
4. **Radar & Satellite**- View the past, current, and future radar here. Choose from many overlay options and zoom to different locations.
5. **Sky Video**- Each day a time-lapse video is created of your camera's images. This tab will show yesterday's video with a graph of your station's readings below. (More options under Cameras tab on page XX)
6. **Station Map**- View where your different data points are being collected from on an interactive map
7. **Zap Map**- Turn on your volume for this one! Our maps are overlaid with real-time lightning data that zaps each time a strike is made. (More on Lightning on Page XX)

Right Side Icons



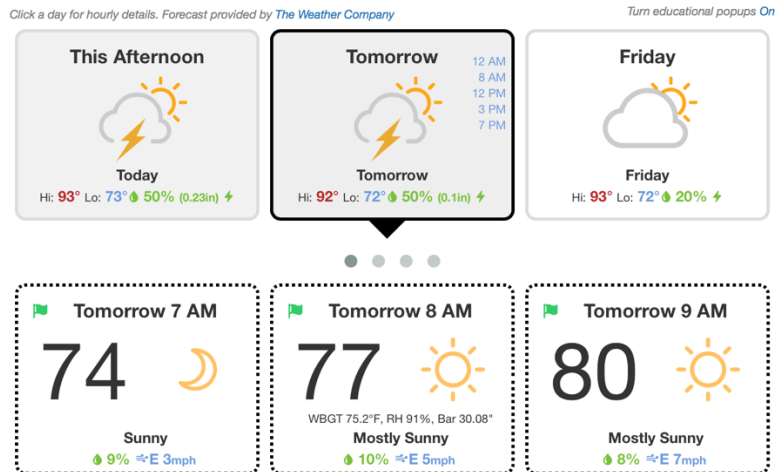
1. **All Sensors**- Your data is front and center as they update in real-time on your main page
2. **Cameras**-



3. **Sun/Moon/Planets**- View Solar, Lunar, and Planetary information here.
4. **Historical**- View historical data for this unit (See more under Data Mining on Page 5)
5. **Rain**- View data points for rain accumulation over time
6. **Additional Tabs**- These populate based on your station's current situation. Examples include during lightning storms, extreme heat, when NWS alerts have been issued, and tropical systems are on the horizon.

Forecasts

Towards the bottom of your page will be your station's forecast data. Scroll through to see your 10-day forecast. Click any day to see the hourly breakdown and click each hour for more info.



GET LOGGED IN

To log into the platform, click “Login” in the top right corner of any WeatherSTEM system homepage. Public users can create free accounts on the platform.

Systems will each have at least one administrative user designated to manage alerts and access additional features of the program.

To change your password, click on your name in the top right corner when logged in.

Login to WeatherSTEM

E-Mail Address

Password

☐ Remember Me

Need Your Password? | [Get Registered \(It's Free\)](#)

Sign In

NAVIGATING THE PLATFORM

Once logged in you can navigate through the platform using the top navigation bar shown here:

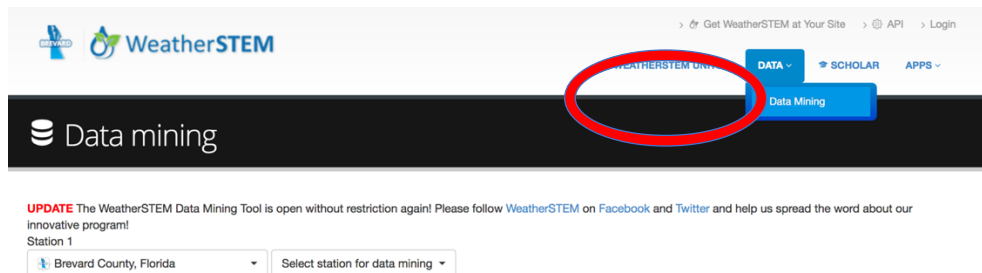


Clicking on the WeatherSTEM Icon will take you to the county's home page showing all units in that county.

Hovering over "WEATHERSTEM UNITS" will drop down all sites for the county. If you click on one it will take you to that station's home page.

DATA MINING

Under the "DATA" tab you will find the data mining tool.



All sensor measurements and images are captured and stored each minute, creating a rich storehouse for knowledge discovery. The Data Mining tool allows for retrieval of readings and images for historical details and trend analysis.

Station 1

Leon County, Florida FSU WeatherSTEM

Oldest record: 2014-06-16 14:29:35

[Add comparison station](#)

[Click instruments whose data you want to mine](#) MySQL mode is off

Sensor	Property	Units	Current reading
10 Minute Wind Gust	Wind Speed	Miles Per Hour (mph)	16 mph
Anemometer	Wind Speed	Miles Per Hour (mph)	12 mph
Barometer	Barometric Pressure	Inches of Mercury (in. Hg)	29.848 in. Hg
Barometer Tendency	Barometric Pressure Tendency	Pressure Tendency	Falling Slowly
Dewpoint	Temperature	Degrees Fahrenheit (°F)	74.0 °F
Heat Index	Temperature	Degrees Fahrenheit (°F)	81.0 °F
Hygrometer	Relative Humidity	Percent Humidity (%)	89 %
Rain Gauge	Today's Rainfall	Inches (in.)	0.02 in.
Rain Rate	Rain Rate	Inches Per Hour (in/hr)	0.08 in/hr
Solar Radiation Sensor	Solar Radiation	Watts Per Square Meter (W/m²)	42 W/m²
Thermometer	Temperature	Degrees Fahrenheit (°F)	77.0 °F
UV Radiation Sensor	Ultra Violet Radiation	UV Index	0
Wet Bulb Globe Temperature	Temperature	Degrees Fahrenheit (°F)	75.5 °F
Wind Chill	Temperature	Degrees Fahrenheit (°F)	75.0 °F

Choose the station(s) you'd like to view data from

Click to choose and the readings you'd like to view. Click again to remove them

Station 1
 Leon County, Florida
 FSU WeatherSTEM

Oldest record: 2014-06-16 14:28:35
[Add comparison station](#)

[Click instruments whose data you want to mine](#)

MySQL mode is off

Sensor	Property	Units	Current reading
10 Minute Wind Gust	Wind Speed	Miles Per Hour (mph)	16 mph
Anemometer	Wind Speed	Miles Per Hour (mph)	12 mph
Barometer	Barometric Pressure	Inches of Mercury (in. Hg)	29.848 in. Hg
Barometer Tendency	Barometric Pressure Tendency	Pressure Tendency	Falling Slowly
Dewpoint	Temperature	Degrees Fahrenheit (°F)	74.0 °F
Heat Index	Temperature	Degrees Fahrenheit (°F)	81.0 °F
Hygrometer	Relative Humidity	Percent Humidity (%)	89 %
Rain Gauge	Today's Rainfall	Inches (in.)	0.02 in.
Rain Rate	Rain Rate	Inches Per Hour (in/hr)	0.08 in/hr
Solar Radiation Sensor	Solar Radiation	Watts Per Square Meter (W/m²)	42 W/m²
Thermometer	Temperature	Degrees Fahrenheit (°F)	77.0 °F
UV Radiation Sensor	Ultra Violet Radiation	UV Index	0
Wet Bulb Globe Temperature	Temperature	Degrees Fahrenheit (°F)	75.5 °F
Wind Chill	Temperature	Degrees Fahrenheit (°F)	75.0 °F



Florida State University WeatherSTEM Sky Camera

Use the calendar on the bottom left to choose your time period and your output format

Then Click SUBMIT!

Select time period (Oldest record: 2014-01-28 20:15:20)

2019-08-01 04:20 PM to 2019-08-02 04:20 PM

FROM TO

07/29/2019 08/02/2019

Apply Cancel

Jul 2019 Aug 2019

Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa

30 1 2 3 4 5 6 28 29 30 31 1 2 3

7 8 9 10 11 12 13 4 5 6 7 8 9 10

14 15 16 17 18 19 20 11 12 13 14 15 16 17

21 22 23 24 25 26 27 18 19 20 21 22 23 24

28 29 30 31 1 2 3 25 26 27 28 29 30 31

4 5 6 7 8 9 10 1 2 3 4 5 6 7

1 20 PM 1 20 PM

Select output format

CSV JSON

Select interval

Minute Hour Day Month Year

Operation

Data point Average Maxima Minima

Select time format

YYYY-MM-DD HH:mm UNIX timestamp (seconds since epoch)

Include Record ID

Submit



Florida State University WeatherSTEM Sky Camera

Create spreadsheets, tables, graphs, and more using your station's data.

Admin Feature: Create your own time lapse videos from this page.

Optional video creation

Florida State Capitol

Frame rate

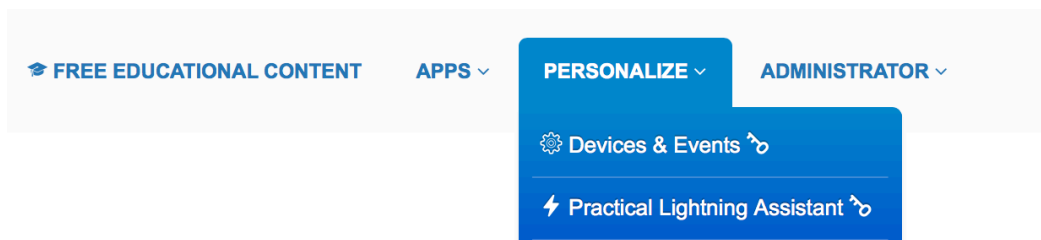
18 frames per second

Add sound (Optional)

Make Movie

NOTIFICATIONS

All notifications will be set up under the “Personalize Tab” in your WeatherSTEM Account



DEVICES

These are the devices you want your notifications to be dispatched to.

1. Hover over the “Personalize” tab
2. Choose “Devices & Events”
3. Click “Add Device” and an Untitled Device will appear in your list

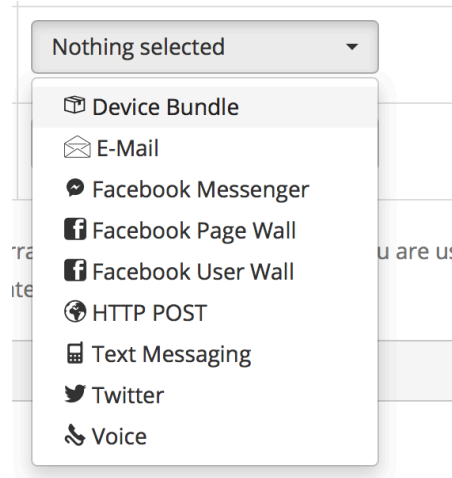
Untitled Device 1 Confirm device	Nothing selected	
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4. Click on “Untitled Device” to Name the device and click the blue box to save

TEST DEVICE

Confirm device

5. Choose the type of device from the drop down



6. Enter the credentials for the device that you add (excluding device bundles) and click the blue button to save.
7. Confirm your device. The button is located under the name of your device. It will ask to send a text message or email depending on the type of device to confirm. Follow the instructions on the prompt and your device is ready to receive alerts!

Device Bundles

This option on the drop down will allow you to group many devices together for notifications to be dispatched. This is useful when you have many staff members that need the same information.

1. When selecting the device type from the drop down choose “Device Bundle”
2. Click on “Device Bundle Setup” on the right side of the screen
3. This will open a new tab where your list will be contained

Active	Co-Owner	Name	E-Mail Address	Current Mobile Devices
This device bundle has no entries				


[Add user](#) | [Import](#) | [Export](#) | [Broadcast](#)

Target

E-Mail and Mobile Devices

☐ Allow user inactivation

4. Add users one by one by clicking the “Add User” Button and entering their email addresses. If they do not have an account already you will be asked to create one for them by entering their name and choosing a temporary password for them.

	Active	Co-Owner	Name	E-Mail Address	Current Mobile Devices
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Demo User	demo@weatherstem.com	None

5. You can also add everyone at once by choosing “Import”. This will allow you to upload a spreadsheet from your computer into the system. Your spreadsheet will need to contain the following columns: First Name, Last Name, Email Address.
6. Once you submit your spreadsheet it will ask you to create the non-existing accounts and your users will be emailed their temporary password.
7. Target- This is how your messages will be delivered. The options are email, push notification, or both.
8. Additional Options:
 - a. Export- If you need to download your list choose this option
 - b. Broadcast- Choose this option to type in a custom message to be sent to everyone on your list. This feature can be used when you have non weather related messages that need to be dispatched to the same group.
 - c. Allow User Inactivation- Checking this box will allow users to remove themselves from your list.

Setting Up Push Notifications on your device

1. Download the WeatherSTEM App
 2. WeatherSTEM will ask you to allow location and notifications. Please choose allow.
 3. Choose WeatherSTEM stations to follow using search or proximity select one or more units
 4. Select Continue
 5. Click the 3 horizontal lines in the top left corner
 6. Choose Notifications
 7. Log in with your email and password
- You are all set to receive notifications!

Once a user in a device bundle list has set this up you will see their device appear under the Mobile Devices Column.

Email to Text Option

If you would like to use the device bundle to dispatch text messages this can be done using the email to text function. When entering the email address in list it in this format:

10digitnumber@carrierextension

EX: Verizon User: 8502971800@vtext.com

Carrier extensions can be found [HERE](#)

National Weather Service Notifications

1. Go to your Devices Page
2. Under the name of the device you want to use click “Turn on NWS Alerts”
3. Choose the station(s) that you want notifications for

Notifications from Station Sensors:

Follow this list to create notifications for wind, rain, heat, or any other sensor from your station

EVENTS

1. Under Personalize Tab choose “Devices & Events”
2. Choose the Events Tab
3. Click “Add Event” and an untitled event will appear on your list
4. Click “Untitled Event” to change the name and click the blue box to save

5. Enter Type choose sensor or forecast. The Sensor type will alert you when a condition is met. A Forecast type will alert you when the condition is forecasted to be met within a certain time period.
6. Click the triangle next to the county name to drop down all sites in the county.
7. Click the triangle next to the site you want to use for your notification.
8. Click the triangle next to the system you want to use (ISS is the label for your station)
9. Choose the sensor you want to use and enter your threshold.
10. Click "Set" to save



MESSAGES

1. Choose the "Messages" tab under "Devices & Events"
2. Click Add Message
3. Click "Untitled Message" to change the name and click the blue box to save
4. Click on "Enter a message" to enter the message you'd like dispatched

MACROS

In this step you will put all the pieces together to create your notification.

TIP: Name your event, message, and macro the same

 Winds 25mph Hours of Operation Mon 12:00 am to 11:59 pm Tue 12:00 am to 11:59 pm Wed 12:00 am to 11:59 pm Thu 12:00 am to 11:59 pm Fri 8:00 am to 8:00 pm Sat 12:00 am to 11:59 pm Sun 12:00 am to 11:59 pm	WGBT	Winds 25mph	 Example	12.0
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1. Choose "Macros" tab under "Devices & Events"
2. Click Add Macro
3. Click Untitled Macros to change the name and click the blue box to save
4. Choose the Event you'd like to trigger your alert

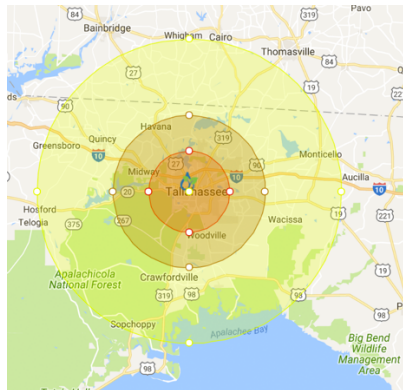
5. Choose the Message you'd like dispatched
6. Choose the Device you'd like to receive the notification
7. Enter the Minimum Repeat. This is how often the notification will be sent out if the threshold is still being met.
8. Choose your hours of operations for this notification which is located under the Macro name.

Your notifications are all set!

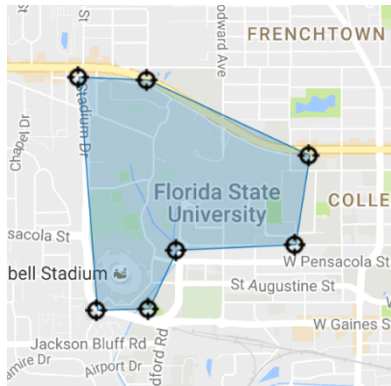
LIGHTNING NOTIFICATIONS

Access the Practical Lightning Assistant under the "Personalize" Tab.
















1. Choose New Location on the left side of the screen
2. Name your location
3. Choose your type
 - a. Point- This will create a point which will represent the center of one or more concentric circles for notifications



- b. Area- You will add vertices on a map to create a geometric shape for alerts.








4. Choose “Create Location”
5. A Google Maps interface will appear. Either drag the WeatherSTEM Icon to your desired location or choose “Go To Address” in the top right of the map to change your location.
6. Create your Zones
 - a. Point- right click or control+click to create circles on your map. To delete a circle right click or control+click on top of that circle.
 - i. To set your radius click the number listed in blue for each circle and type in the desired size.
 - ii. You can color code the circles
 - iii. Status-Turn the status on or off as needed.




Circle	Size	Color	Status
    Clear the field	Radius: 8 miles Area: 201.1 mi ²		<input checked="" type="checkbox"/> ON
    Heads up	Radius: 15 miles Area: 706.9 mi ²		<input checked="" type="checkbox"/> ON
    In the region	Radius: 30 miles Area: 2827.4 mi ²		<input checked="" type="checkbox"/> ON

- b. Area- click the map to add vertices until your shape is complete. Drag it to relocate the shape on your map.

7. Attach Notifications to your Zones

- a. To Add a notification to a circle Click the Bell Icon

Circle	Size	Color	Status
    Clear the field	Radius: 8 miles Area: 201.1 mi ²		<input checked="" type="checkbox"/> ON

 Notification 1 for Clear the field  

Min repeat

☐ Closer overrides min repeat
☐ Inner circles override

Alert message
Clear the field

All clear message
Return to the field

All clear interval

Devices

Add devices in [settings](#)
☒ Cloud to cloud activity
☒ Ground activity

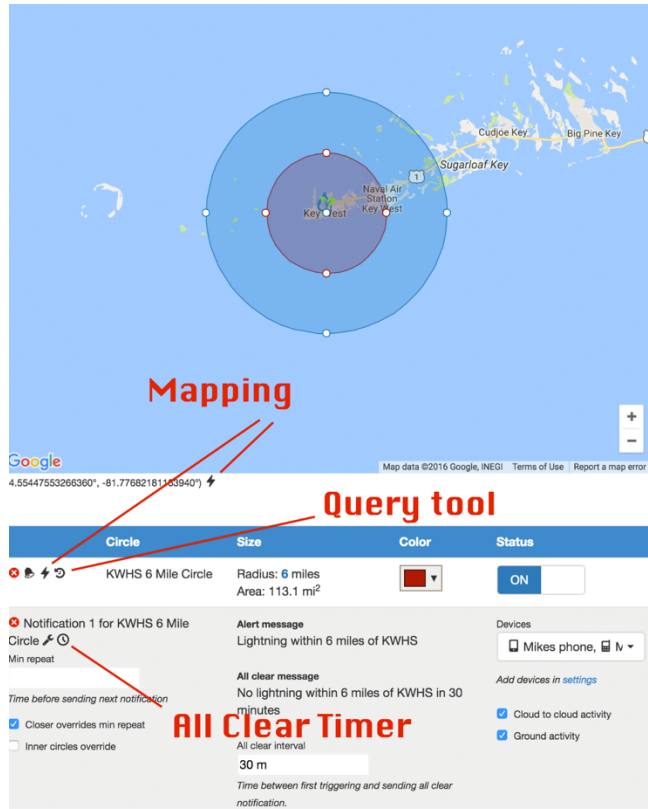
- b. To Add a notification to an area, click the Add Notification button

- c. Choose your device for notifications and enter your alert and all clear messages.
- d. Minimum Repeat lets you control how long after a notification is sent will another occur
- e. All Clear Interval lets you specify how much time should pass with no lightning within a circle or area before an all clear message is dispatched.
- f. Closer overrides Minimum repeat lets you dispatch notifications ignoring the min repeat as lightning gets closer
- g. Inner Circles Override lets you mitigate circumstances where the same bolt of lightning would cause multiple notifications to dispatch (choose for all outer circles)

Other PLA Features

Notification time	Activity that prompted notification	Notification content/device
2015-10-02 20:02:49	Cloud to ground strike 6.761 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 20:02:49	Cloud to ground strike 6.761 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:30:51	Cloud to ground strike 5.809 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:30:51	Cloud to ground strike 5.809 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:30:50	Cloud to ground strike 4.809 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:30:50	Cloud to ground strike 4.809 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:30:50	Cloud to ground strike 5.098 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:30:49	Cloud to ground strike 5.098 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:30:49	Cloud to ground strike 4.651 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:30:49	Cloud to ground strike 4.651 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:26:35	Cloud to ground strike 5.009 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:26:35	Cloud to ground strike 5.009 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:26:35	Cloud to ground strike 5.067 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:26:34	Cloud to ground strike 5.067 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:25:07	Cloud to ground strike 4.264 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:25:07	Cloud to ground strike 4.599 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:25:07	Cloud to ground strike 4.264 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:25:06	Cloud to ground strike 4.599 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:25:04	Cloud to ground strike 4.265 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:25:04	Cloud to ground strike 4.265 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:25:02	Cloud to ground strike 4.408 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:24:59	Cloud to ground strike 4.401 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging
2015-10-02 14:24:58	Cloud to ground strike 4.401 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes phone
2015-10-02 14:24:54	Cloud to ground strike 3.113 miles from Key West High School (Circle: KWHHS 6 Mile Circle)	*Lightning within 6 miles of KWHHS* to Mikes text messaging

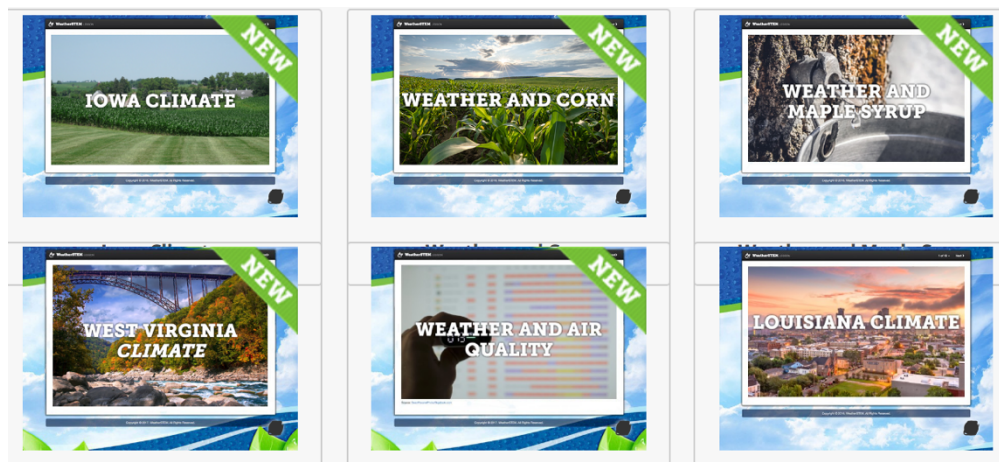
Dashboard features a list of notifications that have been dispatched to any of your devices.



Use the Mapping, Query Tool, and All Clear timer to investigate lightning events and create count downs for restarting outdoor activities.

WEATHER CURRICULUM

Explore our library of Weather Education resources at <https://www.weatherstem.com/learn>



DASHBOARD

To access the dashboard click on the link from your station's homepage or visit <https://www.weatherstem.com/dashboard>

The screenshot shows the Weatherstem dashboard interface. At the top, it displays the temperature range: "Lowest: Appalachian State University 72.5°F | Highest: Tidewater 95°F". The main map area shows the United States with a location pin in Florida. A red arrow points to the "Map" tab, labeled "Add Meteorological Overlays". Another red arrow points to the "Controls" panel, labeled "Add Location Overlays". A third red arrow points to the "ON NOW: The Weather Channel LIVE" button, labeled "Open Wind Study". A fourth red arrow points to the "ZapMap" button, labeled "Turn on Zap Map". A fifth red arrow points to the "DeSoto Trail Elementary 1.108 miles to" link, labeled "Closest System to Location". On the right side, there is a weather summary for "Shannon Lakes North Park, 3205-3209 N Shannon Lakes Dr, Tallahassee, FL 32309, USA". It shows "Mostly Cloudy 89°F" and a 4-hour forecast. Below this, there is a "ZapMap" button and a "Nearest lightning last 30 min: 19 mi W" indicator. A red circle highlights a menu with options: "Expanded current conditions", "10-day forecast", "Almanac/Tides", and "Style forecasts". A red arrow points to this menu with the label "Click for more info".

°F Lowest: Appalachian State University 72.5°F | Highest: Tidewater 95°F

Map Satellite

Canada Hudson Bay Labrador Sea

United States

Mexico

Guatemala Nicaragua Venezuela Guyana Suriname Colombia Ecuador Peru Brazil

Caribbean Sea North Atlantic Ocean

Map data ©2020 Google. INEGI Terms of Use

Reset Zoom to county

Controls Clouds and Radar

Past Future

ON NOW: The Weather Channel LIVE

DeSoto Trail Elementary 1.108 miles to

Closest System to Location

Logged in as Raegan Boyd | Logoff

Give me the weather at

Shannon Lakes North Park, 3205-3209 N Shannon Lakes Dr, Tallahassee, FL 32309, USA

in Leon County, Florida

COVID-19 cases in Leon County, Florida

As of Jul 22nd at 6:50 PM

3319 confirmed cases of COVID-19

13 COVID-19 related deaths

Source: Conference of State Bank Supervisors

More Information: Johns Hopkins University COVID-19 Information Hub

Closest Publix Bradfordville Center (2 miles NNW)

Mostly Cloudy 89°F

Today: Mixed clouds and sun with scattered thunderstorms. High around 90F. Winds SE at 10 to 15 mph. Chance of rain 60%.

1 pm 89°F 2 pm 88°F 3 pm 88°F 4 pm 82°F

ZapMap

Nearest lightning last 30 min: 19 mi W

Tropical Depression Eight is 492 miles SW

Expanded current conditions








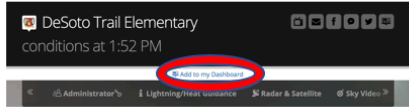



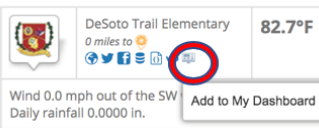

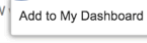

10-day forecast

Almanac/Tides

Style forecasts

Click for more info

Right Side Tool Bar

	Active NWS Alerts		Reporting Station	
	Tropical Updates		View Your Dashboard stations Under the reporting stations menu	
	Reporting Stations		My Dashboard Sites	
	Weather Cameras			
	Sky Videos			
	Weather Channel Programming			Add Stations to your dash- Board on the Station's home page or from Reporting Stations.
	Social Platforms			
	Weather Education			

SUPPORT

Please reach out to our support team with any questions at:

support@weatherstem.com