



LIGHTNING SAFETY TOOLKITS Relaunch | Refresh

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Venues - Parks/Wilderness - Golf - Communities - Beach/Lifeguard - Boating

GLM Science Meeting

Charlie Woodrum

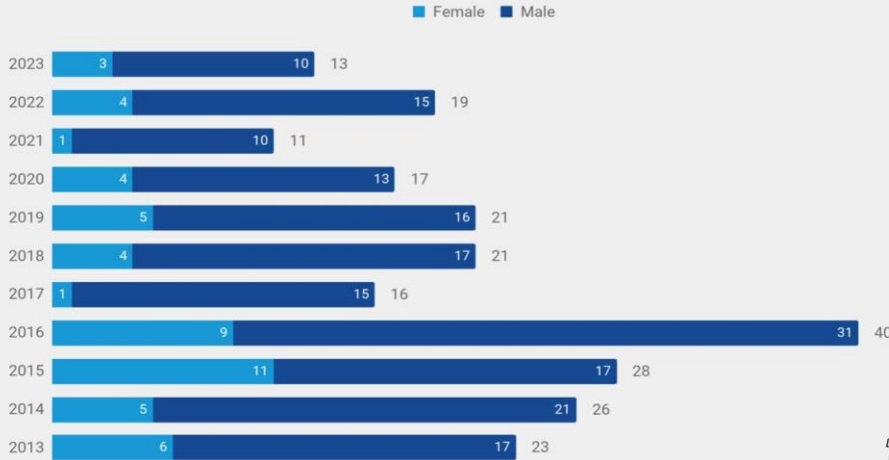
Meteorologist in Charge, WFO Pueblo, CO

Why This Matters

- 20 lightning fatalities annually (19 in 2022, 13 so far in 2023)

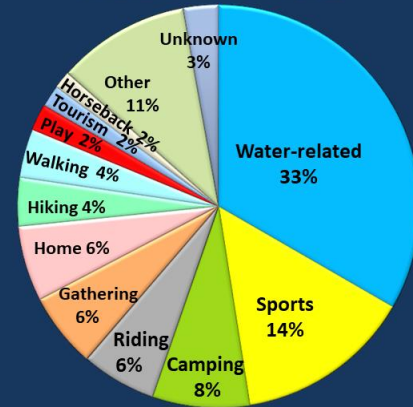
U.S. Lightning Fatalities, 2013-2023

weather.gov/lightning



Last updated:
Oct 5, 2023

Lightning Fatalities Leisure Activities



Based on 282 cases from 2006 through 2021

Compiled by
John Jensenius

History - How we got here...

- Program founded in 2011 based on confusion and unsafe action taken by officials, fans, players, staff, and the media during lightning delays.
- Venue safety toolkit created with input for 3 universities, combining plans into a template for others to use.
- Other organizations found that venue toolkit was too specific to meet their needs, spawning the development of toolkits for lifeguards, communities, and golf courses.



Bobby Dodd Stadium at Georgia Tech is recognized for being the first venue to complete a Lightning Safety Toolkit.

What's New?

- New Parks/Wilderness and Boating/Sailing toolkits
- New brand, aligns with StormReady/WRN
- Fresh content for 2023
- New fillable form that automatically takes input and provides the plan as output.



NOAA's Lightning Safety Toolkits - Plan Generator

The National Weather Service (NWS) has implemented a voluntary recognition program to help better protect people from the dangers of lightning. There are 6 different types of plans depending on entity: Outdoor Venues, Golf Courses, Communities, Beach Patrols and Lifeguards, Wilderness and Outdoor Hiking, and Boating and Sailing.

The NWS will recognize you for developing a plan through the process of completing the questions below. These guidelines may be satisfied by incorporating data/services provided by America's Weather Industry. This program is designed to help reduce the risk of lightning related threats through improved preparedness. It also is designed to increase public awareness of the hazards associated with thunderstorms and lightning. All entities are encouraged to utilize the questions below as input to develop their lightning safety plan. Those who complete the process will be recognized by NOAA's National Weather Service for their proactive efforts in lightning safety.

jared.heil@noaa.gov [Switch account](#)

* Required

OUTDOOR VENUES

LIGHTNING SAFETY, AT YOUR EVENT



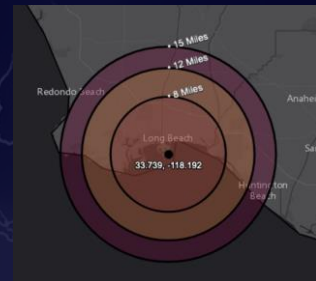
Why This Matters

The National Weather Service (NWS) has implemented a voluntary recognition program to help large outdoor venues, including those on university campuses, better protect staff and patrons from the dangers of lightning. Eligible sites include outdoor sporting arenas, concert venues, water parks, raceways, and amusement parks.

This program is designed to help reduce the risk of lightning-related threats through improved

- Toolkit refreshed in coordination with venue managers and organizations:

- Stadium Managers Association
- Philadelphia Eagles
- Houston Astros
- Las Vegas Aviators
- West Virginia University



- Toolkit still divided up into key sections:

- Information Reception
 - Establish Weather Watcher
- Decision Support Standards
 - Lightning Radii (8/12/15 miles)
- Public Notification Plan
 - Includes pre-canned statements
- Protection Program
 - Identify fully-enclosed structures
- Safety/Education/Preparedness
- Checklists

GOLF FACILITY

LIGHTNING SAFETY, *ON THE LINKS*



Why This Matters

The National Weather Service (NWS) has implemented a voluntary recognition program to help golf facilities better protect staff and patrons from the dangers of lightning. Eligible sites include

- Changed from “Golf Courses to Golf Facilities” to expand it to other golfing venues.
- Shared with commercial weather providers for the PGA and USGA to elicit feedback and ensure consistency across the industry.
 - Minimal suggested changes



COMMUNITIES

LIGHTNING SAFETY



Why This Matters

When Thunder Roars, Go Indoors!

The National Weather Service (NWS) has implemented a voluntary recognition program for local counties and communities to create an awareness of the dangers of lightning at their outdoor recreational venues and provide the community with safety measures to protect

- An inclusive approach to lightning safety where it reaches a wide audience from:
 - Small events (<75 people)
 - A large annual event for a city
 - Multiple facets of activities from land to water
 - An umbrella “catch all” for a series of events happening within a community
- A main focal point of lightning safety to represent an entire community through various methods
 - Protection Plan
 - Public Notification
 - Education
 - Working with other facets within the community to build a network of lightning safety

LIFEGUARDS & BEACH PATROLS

LIGHTNING SAFETY, AT WATER'S EDGE



Why This Matters

Every year, lightning strikes and kills people on or near bodies of water. Summer is the peak season for outdoor and water-related activities, and when most lightning deaths and injuries occur. As recently as 2021, a lifeguard was fatally struck by lightning in New Jersey. Lightning cannot be prevented, but the vulnerability of lifeguards, beach-goers, and patrons near bodies of water can be minimized. This toolkit focuses on best practices to help lifeguards and beachgoers stay safe.

- Toolkit focus on keys sections:
 - Emergency Action Plan
 - 3 Threat Levels (customizable)
 - Staff Education
 - EAP & Injury Response
 - Shelters
 - Forecasting Tools
 - Warning & Communication Tools
 - Daily Operations
 - Appointing Weather Watcher
 - Monitoring Forecast/Hazard
- Partnership with US Lifeguarding Association
 - Co-Creators



WILDERNESS AREA

LIGHTNING SAFETY, *EXPLORING NATURE*



Why This Matters

When Thunder Roars, Go Indoors!

The National Weather Service (NWS) has implemented a voluntary recognition program for public land management agencies to make visitors aware of the dangers of lightning and provide them with safety measures to protect themselves. This campaign encourages visitors to

- Challenges
 - Large areas
 - Visitors scattered
 - No effective notification systems
 - No shelters
- Toolkit focuses on:
 - Lightning Safety Plan
 - Public education
 - Individual responsibility
- Resource: “Lightning Risk Management for Backcountry Campers and Hikers”

BOATING & SAILING

LIGHTNING SAFETY, *ON THE WATER*



Why This Matters

Every year, weather impacts cause serious injury and death to people on bodies of water in the U.S. The majority of these incidents occur in the summer, the peak season for outdoor and

[https://www.weather.gov/om/boating/boating_safety.html](#)

- Focus 1: Education & Preparedness
 - Marine Hazards
 - Storms
 - Other Weather Phenomena
 - Ways To Get Forecasts & Warnings
 - Getting Watercraft Lightning Ready
 - What To Do When Caught In A Storm
- Focus 2: Having A Plan
 - Appointing Weather Watchers
 - Situational Awareness Techniques
 - Prepping The Boat
 - Prepping The Marina (If Applicable)

- Prepared with help from US Sailing



Process for Completing Lightning Safety with the Toolkits

1. NWS office (WCM or Forecaster) advertises availability of new toolkits
2. Organizations fill out toolkits on their own or NWS team members meets with them to go through the GoogleForm together (generate a PDF and link to editable Google Doc)
3. Completed form is sent to user, local NWS contact, and wrn.lightning@noaa.gov
4. User submits to WCM or designated WFO team member for review
5. WCM reviews, provides input/feedback if needed, and then submits validation to wrn.lightning@noaa.gov
6. Recognition



Web Page/Email Address

- Website
(<https://www.weather.gov/safety/lightning-toolkits>) updated with new toolkits.
 - Both the interactive form and fillable Word Doc available (for those who can't use Google).
- Utilize wrn.lightning@noaa.gov if you have questions, comments, or concerns for the Lightning Safety Toolkit Team!

What's New | Lightning Safety | Lightning Science | Victims Medical | Frequently Asked Questions

WRN
NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

Lightning Resources

- For the Media
- Myths and Facts
- Teachers
- Kids and Teens
- Toolkits for Organizations, Venues
- Multimedia
- Lightning Photos
- Information, Brochures
- International, Links, Partners

WRN **LIGHTNING SAFETY TOOLKITS**

The lightning safety toolkit program was founded in 2011 to increase lightning safety and preparedness at outdoor venues. These toolkits have been developed with the input and best practices of key stakeholders. Sites that show a commitment to lightning safety by filling out the appropriate toolkit below in concert with your [local Warning Coordination Meteorological \(WCMA\)](#) will be listed on our website as a lightning safety site. This program is a key component of NOAA's commitment to a Weather Ready Nation. Complete an interactive form (must review and accept Terms of Use) or a fillable Word document to create a draft lightning safety plan for your organization. After you complete your draft plan, email it to your local NWS office for review. After you complete your draft plan, email it to your local NWS office for review. After NWS approval, your organization can then be recognized for having a written plan for lightning safety.

Need further assistance in this process? [Email us!](#)

Outdoor Venues
[Interactive Form](#) | [Download & Fill \(Word Doc\)](#)

Golf Facilities
[Interactive Form](#) | [Download & Fill \(Word Doc\)](#)

Parks and Wilderness
[Interactive Form](#) | [Download & Fill \(Word Doc\)](#)

Communities
[Interactive Form](#) | [Download & Fill \(Word Doc\)](#)

Beaches and Lifeguards
[Interactive Form](#) | [Download & Fill \(Word Doc\)](#)

Boating and Sailing
[Interactive Form](#) | [Download & Fill \(Word Doc\)](#)

Thank You!

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Communities- Luigi.Meccariello@noaa.gov

Lifeguards and Beach Patrols- mkyle@udel.edu



QR code for <https://www.weather.gov/safety/lightning-toolkits>