

# LIGHTNING DATA CENTER MINUTES

May 14, 2021

ST. ANTHONY HOSPITAL

[www.lightningdatacenter.org](http://www.lightningdatacenter.org)

Monthly Quote: "...if thunder peals to purify the air, lightning must fall somewhere. Nature's forces cannot occupy themselves about what may happen to each of us in particular; it is our duty to investigate their laws and to profit by them accordingly. As the fire of the skies must fall upon a surface covered with men, animals, and combustible substances, of all kinds, we must open to it the road we wish it to travel."

"Thunder And Lightning" By W. de Fonvielle 1869

Members present: Crow, Langford, Swanson, Terry, Wachtel, Yarnell, and guest John Jensenius.. Langford moderated. Meeting began at 11:48 AM and ended at 12:41 PM.

1. **VERY IMPORTANT – PLEASE READ!** As of May 2021, we will continue to hold meetings via Zoom only through at least June. As of May 10, the number of COVID cases continues to rise, especially among teenagers. Hospitalizations remain high, especially in the 40-64 age range. The vaccination rate in Colorado remains steady. As of June 1, the mask requirements in Colorado will be lifted and be replaced by mask guidelines. Local governments and business will be able to require mask use as they wish. Hospital administration says it is too early to know if in-person meetings can resume in July.
2. The LDC is accepting donations, either as cash or check. If you donate via check, please make your check payable to Steve Clark at 755 S. Clinton Street, #2A; Denver, CO 80247. He will cash the check and keep the cash holdings specifically for the LDC. When the LDC incurs expenses, Steve will pay for services rendered through his bank account using the cash from LDC's cash holdings. A log will be maintained detailing the inflow and outflow of monies. At the present, the LDC has \$632.00 in cash.
3. Howard Wachtel noted that according to the Vaisala graphic "Lightning Fatalities by State, 1959-2016," there have been no fatalities noted for Alaska or Hawaii in the last 50 years or so. Howard thinks this is a reporting issue.
4. John Jensenius was our invited guest today. John is part of the National Lightning Safety Council. He retired from NOAA in January 2019, but continues his lightning related work on a voluntary basis. We thank him for presenting. John spoke on the under reporting of lightning incidents in 2020 due to some secondary impacts of the 2020 Covid-19 Pandemic. Traditionally lightning fatality statistics and related storm data are gleaned from media reports as well as other sources. Among his gathering methods are Google alerts, and cases referred to him by personal and professional contacts. In 2020 he received many fewer reports of lightning deaths and injuries. This seemed odd considering that Covid tended to drive people outside more for their summer activities.

His hypothesis is that 1) many reporters were either laid off or had their hours reduced during Covid - leading to a general reduction in news reporting, and 2) the news tended to be dominated by other stories including virus-related stories, the 2020 election, and violence in the streets in some major US cities. Thus, many reports were third and fourth-hand, and required follow up, in some cases with local medical examiners. John said many state websites provide marginal or untimely data in the area of lightning impacts to people.

5. Carl Swanson reintroduced his lightning data gathering projects for the benefit of John Jensenius. The Lightning Data project is a follow-up to the original 1992 & 1999 studies of the Underreporting of Lightning Injuries and Deaths in Colorado. The First Responders project is an effort to collect data on how lightning injured persons present to EMS personnel in the field. This latter project has been ongoing since 2015. Carl added that our project is interested in those people who have been "affected by" lightning, whether or not they report themselves as injured. Some people experience delayed onset of sequelae from the incident. Some of these people had declined health care at the time of the injury.
6. John and Carl then proceeded to exchange ideas on how to improve accurate reporting of lightning injury and fatalities. John feels that the recorded CDC numbers for lightning injury post 2006 are in pretty good agreement with his follow up findings. Carl pointed out that these numbers refer to fatalities, not injuries. John said that since he took on the project in 2006 he has to occasionally needed to remind NWS offices to record fatalities in their databases. Carl asked if every state has a web page like the excellent Colorado Lightning Resource Page. John conceded that they do not. He said if anyone has info on lightning injuries they can contact the local weather service office, because the NWS is supposed to be documenting injuries. More statistical information can be found on the National Lightning Safety Council website, linked below.

John pointed out that CDC lightning injury statistics are stripped of all identifying information – which makes validation difficult - and their publication lags by two or three years. Ken Langford suggested that local weather watchers could be employed to help gather lightning injury data.

Colleen Crow asked how injury information could better be shared with the public to help educate the masses about the lightning hazard. John said he looks for "media hooks" that might interest reporters and editors to include stories in their publications. He said that the media are the best way to spread the word of lightning safety.

At the conclusion of this discussion John excused himself from the meeting.

7. Carl Swanson reported that a farmer in Dyer, Tennessee was injured by lightning during the previous week while "holding a pipe" in a milking barn. The exact nature of his injuries was not shared, but the subject did not suffer cardiac arrest or require CPR.

A related newspaper article (linked below) had this to say relative to the incident: "Farm work doesn't stop just because the weather forecast calls for rain or thunderstorms. ...though the odds of getting hit are low, they are high enough that the risk must be taken seriously."

8. Colleen Crow will be volunteering at Rocky Mountain National Park in late July and August. She would be willing to guide a field trip to show where she had her encounter with lightning. She said lightning safety is a normal part of the summer programs there, but only small Ranger programs have been held since the start of Covid. She also commented that she wishes lightning injury (as opposed to just fatality) would get more press, so that the risk could be better understood. Langford commented that it is ironic that by virtue of successful efforts nationally to reduce lightning injury and fatalities, the public perception of risk may have also dropped. Also, with the reduced need for care of these injuries, the demand for expertise in the care of these injuries has also declined.
9. Ken Langford presented a brief tour of the lightningmaps.org website, which displays active lightning strikes in near-real time. Colleen mentioned the Sparks function of the WeatherBug phone app. Carl said it is not that geographically accurate when calculating the distance to the user. Ken pointed out that the WeatherBug app does not seem to allow the user to pinpoint their exact location, so therefore the calculated distances of local lightning strikes are approximate only in reference to the users' location.
10. Langford presented a video of a lightning strike destroying a tree as seen from a Wisconsin high school. The incident occurred just outside of Wautoma High School on April 8, 2021. The video is notably dramatic in that the tree is totally destroyed by the flash. (see link below).
11. LDC welcomes your medical questions. Please send them via e-mail to Steve Clark at [sclarktoto@gmail.com](mailto:sclarktoto@gmail.com). Your medical questions will be forwarded to Dr. Phil Yarnell for his review and will usually be taken up for discussion in the next month's meeting. Please be advised any questions posed are for the general consideration by the group and do not constitute a formal medical opinion. If a formal evaluation is requested, arrangements can be made directly with Dr. Yarnell. If you have a medical emergency, please call 911 or your local EMS.
12. Questions, comments, error notifications, and critiques of these minutes are welcome. Please forward those to Steve Clark. Please keep your communications professional and respectful. Communications will be forwarded to the appropriate author(s) of the minutes and addressed accordingly.
13. LDC Disclaimer: These minutes do not represent official positions of the LDC or its members. They simply reflect the comments made at the meeting. Furthermore, the LDC does not implicitly or explicitly recommend or endorse any product or service. Any product or service presented in these minutes is done so for purposes of discussion and analysis. The merit (or lack thereof) is open for the consideration and review by the entire membership.
14. Next meeting: Zoom meeting. Friday, June 11, 2021, from 11:45 AM to 1:00 PM MDT.

Respectfully Submitted,  
Kenneth Langford  
Mr Random Enterprises, Inc.

## Lightning Links

**This is a monthly listing of periodicals, websites, and videos about lightning and allied areas from a variety of sources. A headline or description is listed, followed by the link. Please note that some of the links are perishable, which means you'll need to go to the source for the information.**

Van Dam, D., 2021: Don't Be Shocked! Tuesday's Storms Were the Most Electric in More Than 4 Years. *CNN.com*. May 6, 2021.

Link: <https://www.cnn.com/2021/05/05/weather/lightning-weather-storms-severe-southeast/index.html>

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Lightning Fatalities by State, 1959-2016

[https://www.weather.gov/media/safety/59-17\\_State\\_Ltg\\_Fatality\\_Maps\\_lists.pdf](https://www.weather.gov/media/safety/59-17_State_Ltg_Fatality_Maps_lists.pdf)

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National Lightning Safety Council

<http://lightningsafetycouncil.org/>

This is an excellent site with lots of safety information and great lightning statistics.

<http://lightningsafetycouncil.org/LSC-LightningFatalities.html>

A nice summary of progress in the improvement of lightning safety can be found here:

<http://lightningsafetycouncil.org/LSC-LSAW-Infographic.html>

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National Lightning Safety Awareness Week

June 20 - 26, 2021

<http://lightningsafetycouncil.org/LSC-LSAW.html>

Next month will include the annual National Lightning Safety Awareness Week. The link above provides details of information associated with the week.

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Tennessee farmer survives lightning strike during Mother's Day storms

<https://wreg.com/news/tennessee-farmer-survives-lightning-strike-during-mothers-day-storms/>

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Near Real Time Lightning Display

<https://www.lightningmaps.org>

This site offers a map of lightning strikes as they occur in near real-time. The map is movable, and the scale of view can be changed. The map appears to work world-wide, although data is only as good as the local detection network. If one is zoomed in enough the display even shows the propagation of the thunder wave front. Use this link to go directly to a Denver Metro display:

<https://www.lightningmaps.org/?lang=en#m=oss;t=3;s=0;o=0;b=15.07;ts=0;y=39.3895;x=-104.9771;z=9;d=2;dl=2;dc=0;ts24=1;>

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Lightning strike destroys tree outside Wisconsin high school

<https://www.youtube.com/watch?v=AKHaUPNEKVg>