

LIGHTNING DATA CENTER MINUTES

October 14, 2022

ST. ANTHONY HOSPITAL, LAKEWOOD, COLORADO

Monthly Quote: ““Paper is a very poor conductor, and the man dressed in a paper suit could almost defy the natural desire which lightning has for him.” *Wheeling Register*. July 16, 1896

Members present: Clark, Coomer, Stemple, Swanson and Yarnell. Meeting began at 11:55 AM and ended at 1:00 PM.

1. 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. LDC currently has \$1087.00 in cash.
2. The LDC was saddened to learn of the passing of lightning researcher Dr. Raúl E. López, who passed away on September 4, 2022. Carl Swanson received an e-mail from Evangelia López on October 10 advising of his passing. Raúl had suffered from three strokes and had been in very serious condition during the last 6 months of his life and was unconscious for 5 of those 6 months. He and his wife were married for 61 years and had two sons, five grandchildren and one great-granddaughter. Carl and Raúl had a strong friendship and Raúl was happy to be associated with the LDC. Raúl published over 50 papers in the peer-reviewed literature, several of them on lightning with co-author Ron Holle, starting around the mid-1980s to as recently as 2015. The lightning research community has lost a strong contributor to the field and he will be missed. Our condolences go to the López family. Here is a link to Raúl's obituary: <https://www.legacy.com/us/obituaries/name/raul-lopez-obituary?id=36420538>
3. This month's meeting was scheduled to honor Dr. Cherington, but is being postponed until the June 2023 meeting. The Cherington family has a lot to go through still and other LDC members still have scheduling issues with an October or November meeting.
4. The Lightning Strike & Electric Shock Survivors International will be holding their annual meeting in Lynchburg, Virginia on November 4-5, 2022. A schedule of events is attached to these minutes. Phil Yarnell wanted to know if Barb Stemple could speak at the female survivors support group meetings. Barb said she'll be traveling both days and might be able to help on the Friday meeting, but not the Saturday meeting. Steve said he would reach out to Coleen Crow and see if she might be able to help out. It appears there will be capability to watch the meeting via Zoom, but if it is done like the previous meeting, Zoom details will not be released until shortly before the meeting.

5. Bobby Coomer asked if lightning causes cataracts. Phil said the literature says yes and told Bobby to do a Google search on cataracts and lightning. When Bobby posed that question to his eye doctor, the doctor told him no. Steve said he'll bring some articles to next month's meeting showing that.
6. Carl learned of a lady who thinks she was hit by lightning while walking down a hallway in her home. She was walking by an outlet on the left side of the hall and she thinks she felt lightning, and at the same time, felt a tingling on the right side of her neck. She developed headaches, has spasms, and the left side of her body is "messed up". When hurricane Ian was approaching, she had a buzzing sensation in her head. Several survivors have reported this condition. Bobby related a similar condition and compared it to tinnitus but much louder. She will be presenting at next month's meeting.
7. A while back, Carl e-mailed Steve an article showing where four police officers were riding in a minivan in Arizona, when the van was hit by lightning. All four officers said they felt something but were otherwise unharmed. The van was not so lucky. The electronics were ruined and the outside of the van had two burn marks along the edge of the rooftop. Carl asked if the windows were cracked open or not and if they weren't, how is it that lightning could penetrate into what should be an almost ideal Faraday cage. Ron Holle wrote a paper titled "Lightning-Caused Deaths and Injuries in the Vicinity of Vehicles" and the link can be found in the Lightning Links section below.
8. Barb Stemple said she would like an automated meeting reminder to be issued about two days before the meeting. She is having over 1000 brochures printed. Barb said the local Rotary group may help to pay for them but they are concerned about our non-profit status and whether or not they can make a proper tax-deductible contribution. Steve said he will speak to hospital administration on both of these concerns.
9. LDC welcomes your questions. Please send them via e-mail to Steve Clark at 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.
10. 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.
11. 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.

12. Next meeting: Zoom Meeting Only. Friday, November 11, 2022, from 11:45 AM to 1:00 PM MDT. TOPIC: We will be meeting with a lightning strike survivor via Zoom.

Respectfully Submitted,
Steven E. Clark, Consulting Meteorologist

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.

Cartier, K., 2022: Gigantic Jet of Lightning Mapped Over Oklahoma. *EOS*. September 7, 2022. Link: <https://eos.org/articles/gigantic-jet-of-lightning-mapped-over-oklahoma>

Boggs, L., D. Mach, E. Bruning, N. Liu, O. Van Der Velde, J. Montanya, S. Cummer, K. Palivec, V. Chmielewski, D. MacGorman and M. Peterson, 2022: Upward Propagation of Gigantic Jets Revealed by 3D Radio and Optical Mapping. *Science Advances*. August 3, 2022. Link: <https://www.science.org/doi/10.1126/sciadv.abl8731>

Stanley, S., 2015: How Long Is A Bolt of Lightning? *EOS*. November 4, 2015. Link: <https://eos.org/research-spotlights/how-long-is-a-bolt-of-lightning>

Bruning, E. and R. Thomas, 2015: Lightning Channel Length and Flash Energy Determined from Moments of the Flash Area Distribution. *JGR Atmospheres*. August 13, 2015. Link: <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2015JD023766>

Bruning, E. and D. MacGorman, 2013: Theory and Observations of Controls on Lightning Flash Size Spectra. *Journal of the Atmospheric Sciences*. December 1, 2013. Link: <https://journals.ametsoc.org/view/journals/atsc/70/12/jas-d-12-0289.1.xml>

Wright, K., 2022: 2022 Lightning Fatalities Now Up To 18. *WCCB-TV*. September 19, 2022. Link: <https://www.wccbcharlotte.com/2022/09/19/2022-lightning-fatalities-now-up-to-3/>

AZFamily Digital News Staff and Gray News Staff, 2022: Dad Saved 12-Year Old Daughter Struck by Lightning. KTVK/KPHO via Gray Media Group. October 18, 2022. Link: <https://www.kktv.com/2022/10/18/dad-saves-12-year-old-daughter-struck-by-lightning/>

Holle, R., 2008: 5.4 Lightning-Caused Deaths and Injuries in the Vicinity of Vehicles. Preprints, *3rd Conference on Meteorological Applications of Lightning Data*. New Orleans, LA, Amer. Meteor. Soc., 1-10. Link: <https://ams.confex.com/ams/88Annual/webprogram/Paper135740.html>



LS&ESSI

Lightning Strike and Electric Shock Survivors Int. Inc. Lynchburg, Virginia Conference 2022

Friday, November 4th, 2021 9:00 am -- 9:00 pm

Saturday, November 5th, 2021 9:00 am -- 4:00 pm

Event Schedule

Date / Time	Friday, Nov 4,2022	Saturday, Nov 5,2022
9:00 to 9:15	Welcome Steve	Welcome
9:20 – 10:20	Jim Segneri Glad you are here!	Samantha Mladen VCU Practicum Doctoral Trainee
Break	10 mins	10 mins
10:30 - 11:30	Eric Miller Care Portal	John Jensenius NOAA
11:30 - 12:30	Introductions of Group	Speaker??
12:30 - 1:30	Lunch	Lunch
1:30 - 2:30	Dr. Joy Palmer Liberty Mountain Med	1:30 Closing Comments / 1:45 Support Groups until 4pm
2:45 to 5:45	Support Groups	4 PM Support Groups Closed
6:30 to 9:30	Dinner / Auction	Conference Closed 4PM