

LIGHTNING DATA CENTER MINUTES

September 8, 2023

ST. ANTHONY HOSPITAL, LAKEWOOD, COLORADO

Monthly Quote: “This woman, we believe, was walking from her condo to the car, you know, a very short distance. But all it takes is a split second to have something like this happen, unfortunately.” - Rob Shaw, Clearwater Police & Fire Spokesperson. Source: Fox 13 News.

Members present: Clark, Swanson, Wachtel, Yarnell and a lightning survivor. Meeting began at 11:45 AM and ended at 1:10 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 \$742.00 in cash.
2. Howard Wachtel let us know that he watched a feature on lightning on “CBS Sunday Morning” on August 27, 2023. The special is called “The Secrets of Lightning” and a link is posted in the Lightning Links section of these minutes.
3. Carl Swanson gave an update on his First Responder Project, which he operates in Colorado and Tennessee. To date, four people have been hit by lightning – two in Colorado and two in Tennessee. The two in Tennessee were reported during the past month. The second person hit had been riding a bicycle on his porch (stationary bicycle?) and was affected but not injured. He was knocked off the bike and reported tingling all over. He was taken to the hospital. There were no burns or cardiological issues. He was breathing fine and was conscious. There was no loss of consciousness.
4. We met with a female lightning survivor who was introduced to us by Carl. She was sitting on a chair in her dining room when she was hit. There was a big storm with lots of lightning nearby. She was sitting by a bay window about 5 feet away to the left of her. About 8 inches behind her, there was an electrical socket. She saw a bright flash of light and at the same time felt like she was being stabbed by a white-hot iron poker in three places on her back: near the base of the spine, behind her heart and near the back of her head. She was in lots of pain and was having trouble breathing. Her heart felt funny. About 30 minutes after the strike, she was taken to the ER. ER doctors did not know what to do with her as they had never treated a lightning patient. She was sent home and told to find a specialist. The first cardiologist that she saw told her she could not have been hit by lightning otherwise she would be dead.

Tests performed later showed the following: Her EKG was abnormal and there was liver damage, as indicated by high enzyme levels. A chest monitor indicated some abnormalities but nothing major. There were no burn marks or ferning.

Current issues: She has trouble with finding words. She is lethargic and needs more sleep than what she used to. She wakes up at night. Prior to the strike, her heart rate was very low, but now is normal, but fast to her. Doctors have told her the EKG will always be off, but not enough to warrant any action. They said the EKG from the bottom to the top of the heart is too fast. Her EKG is now stable. She can go out jogging but she goes slower and is not back to long-distance running. She cannot drink any alcohol; although the enzymes in her liver are nearly normal. Her fingers used to get cold in 65-degree weather, but now she has a much greater tolerance to cold. She will need a hysterectomy due to scar tissue which is possibly related to the strike. The scar tissue was found after she was struck. She gets anxious when it clouds up and storms. Two weeks prior to this meeting, she had a debilitating headache during a storm. She can feel the lightning when it is close by and the hair on her arms will stand up. This lady has a tattoo on her back, with pink, brown and black colors. Dr. Yarnell noted some tattoo inks contain iron compounds and wondered if those compounds could be interfering with diagnostic equipment.

There was black soot on outlets in the dining room where she was and in the living room. There was no soot on the outlets in the kitchen or the bedrooms. The Comcast box was ruined. She thinks the lightning came in through the socket because the soot around the socket extended almost a full "socket plate" above the socket. People in other rooms noticed the lights flickered. There was underground electrical wiring from a shed to the house.

At about 12:30 PM, Howard Wachtel and Dr. Yarnell left the meeting. Carl and I continued asking the survivor questions. We learned the following about the strike environment: The bedrooms and the kitchen were wired separately from the dining room and the living room. The living room and the dining room were tied to the same circuit. The wiring from the shed to the house was done from the living room/dining room circuit. The lady told us the wiring to the shed was not done by a professional. She also said circuit breakers did not turn off expected portions of the house. She thinks the wiring of the shed to the house was jury-rigged, which raises questions about whether the wiring job was properly grounded. As mentioned earlier, the wall sockets were sooty in the dining room and the living room, but not in other rooms in the house.

Carl asked if there were any holes in the ground from the lightning and what kind of soil is most common. We were told there was a hole in the ground, more or less funnel shaped and that the soil was sandy. Carl informed her there may be fulgarites near the location of the hole.

5. In an effort to recognize the collaboration that goes into the successful design, build and implementation of lightning protection systems, the Lightning Protection Institute (LPI) annually awards the "Most Innovative Design" award to LPI members that work with other trades in the installation of lightning protection systems in preexisting buildings and in new construction. For more details, see the link below in the Lightning Links section.

6. 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.
7. Questions, comments, error notifications, and critiques of these minutes are welcome. Please send them to Steve Clark. Please keep the communications professional and respectful. They will be forwarded to the appropriate author(s) of the minutes and addressed accordingly.
8. 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.
9. Next meeting: Friday, October 13, 2023, from 11:45 AM to 1:00 PM MDT.

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.

Tracy, K and Fox 13 News Staff, 2023: Clearwater Woman Killed by Lightning Identified by Authorities. *Fox 13 News*. August 24, 2023. Link: <https://www.fox13news.com/news/clearwater-woman-killed-by-lightning-identified-by-authorities>

Lightning Protection Institute, 2023: The Lightning Protection Institute Announces the 2023 “Most Innovative Design Awards”. *Newsmatics, Inc. dba EIN Presswire*. August 31, 2023. Link: https://www.einnews.com/pr_news/651170563/the-lightning-protection-institute-announces-the-2023-most-innovative-design-awards

VIDEO: Marston, R., (Producer) 2023: The Secrets of Lightning, CBS Sunday Morning News. August 28, 2023. Link: <https://www.cbsnews.com/video/the-secrets-of-lightning/>
