

# LIGHTNING DATA CENTER MINUTES

February 10, 2023

ST. ANTHONY HOSPITAL, LAKEWOOD, COLORADO

Monthly Quote: “Love is like the lightning, and your maturity is signaled by the extent to which you can accept the dangers and the power and the beauty of love.” - James Baldwin

Members present: Clark, Weiss, Swanson, Crow, Terry, Stemple and Yarnell. Meeting began at 11:50 AM and ended at 1:45 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 \$837.00 in cash.
2. LDC received notice of an interesting article on laser-guided lightning. During the summer of 2021 in northeastern Switzerland, experiments were conducted for the first time outdoors during thunderstorms in an effort to guide lightning using laser beams. An upward negative lightning leader was guided over a distance of 50 meters. While this had previously achieved in a lab setting, this was the first time it has been achieved in a real thunderstorm. This successful demonstration shows potential for laser-guided lightning to protect critical infrastructure.
3. Prior to last month’s meeting, Rick O’Keefe with Lightning [LP] & [PQ] sent a tweet showing a Russian rocket hit by lightning shortly after liftoff, which can be seen [here](#). He was surprised that the lightning did not follow the exhaust trail more closely than it did. The rocket survived.
4. Rick also informs us that Frank Shumbusho, a Citizen Reporter from Rwanda, was the Hero of the Month for his reporting on lightning injuries and fatalities. Through the efforts of Frank and other citizen reporters, the African Centres for Lightning and Electromagnetics Network (ACLEnet) has the largest publicly available database on lightning injuries. As of December 2022, the database covers 40 of the 55 countries in Africa. The database can be viewed [here](#).
5. We welcomed our newest member, Cynthia Weiss, who presented her case of being hit by lightning. NOTE: Permission was granted by Cynthia to share personal information to tell her story. She lives in northern Idaho near the Canadian border. On Mother’s day in 2021, there was a weather forecast that said thunderstorms would be in her area about 2 hours later. Later, she had a premonition to instruct her husband to get out of their mechanical room and to get inside the house. The husband was irritated. He slammed the door shut and right then lightning struck through the roof into their mechanical roof and into the plumbing. Cynthia was washing dishes and had her right hand in the water. The lightning came through the faucet, entered her right hand and ran down her body and out through her right toe. She was thrown into an island. There was black smoke because the house had caught on fire.

She was in excruciating pain and she did not know if she would live. Paramedics were called and it took them two hours to arrive. They tried to get a blood pressure reading, but it was too high to get an accurate reading. The EMTs did not believe she was struck and they thought she was delusional. She told them her foot was in excruciating pain, but they did not examine it.

She was referred to multiple doctors, many of whom said her symptoms have nothing to do with lightning. About a year after she was hit, she started having seizures. She went to the ER shortly after the seizures began. At one point, she had a 9-hour seizure. When she came out of the seizure, she did not know anyone except her husband. Now, she is on anti-seizure medications.

She has some other health issues following the strike, which are listed here in no particular order. She was bedridden for 1-2 months. Her bones in one foot have fused together and she has to go in periodically to have bone ground down. Her right foot is 2 shoe sizes larger than her left foot, so she has to buy 2 pair of shoes in order to have a single pair to wear. She wears foot-leg braces. She has become allergic to metals in her body. She became aware of this when doctors tried attaching metal to bone. The metals did not bond to her bones; instead, they ate through the bones. Her extremities are always cold, even in the summer. She has an electric blanket for her truck and she always needs heat in bed. Before the strike, she was always stoic – always helping others during their time of need. Now she becomes emotional. She is having to retrain her brain. Before the strike, her hair was thick and black and after the strike, she lost large clumps of her hair which has been replaced with fine, silver hair. She has issues with selecting words and with the recall of numbers. She is in constant pain and gets very little sleep. She occasionally “checks out” and apparently goes to sleep and her husband has to wake her up. When she wakes up, she is not aware that she was gone. There is general numbness in both hands. She has no feeling in her thumb or her index finger and some feeling in her other fingers. She is unable to grasp most objects. She gets dizzy a lot and has vertigo. Her arthritis and stenosis are getting worse.

She has trouble with electronics. When she touches cellphones, they no longer work. She bought a new Apple phone last January and ever since she touched it, it will not work, despite calls and trips to the phone store. She cannot wear a watch (mechanical or electronic) since they will stop running. Bright lights bother her. She gets very scared when thunderstorms are near and her body will start to throb.

6. LDC welcomes your 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.
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, March 10, 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.**

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Houard, A., et. al., 2022: Laser Guided Lightning. *Nature Photonics*. January 16, 2023.  
Link: <https://www.nature.com/articles/s41566-022-01139-z>

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