

# LIGHTNING DATA CENTER MINUTES

July 13, 2018

ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO

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

Quote of the Month: “Q - What is the difference between electricity and lightning? A – You don’t have to pay nothing for lightning.” Morgan County Republican, Vol. 20, No. 20, May 14, 1920. Link: <https://www.coloradohistoricnewspapers.org/cgi-bin/colorado?a=d&d=MCR19200514-01.2.72&srpos=83&e=-----en-20--81--txt-txIN-lightning-----0->

1. Members Present: Clark, Swanson, Gargan, Wachtel, Crow (Bill & Coleen), Cherington (Michael & Nancy), Wells, Yarnell, Gift, Johnson, Stemple, Stewart, Shearer and Nibbe. Meeting began at 11:55 AM and ended at 1:10 PM. Clark moderated.
2. The International Conference on Lightning and Static Electricity will be held in Wichita, Kansas on September 10-13, 2019. Wichita State University’s National Institute for Aviation Research and Electro Magnetic Applications, Inc. will co-host the event. More information can be found at: <http://icolse.com/announcement-on-venue-location-and-dates/>.
3. This from Abdul Mousa with [LightningProtection@yahoogroups.com](mailto:LightningProtection@yahoogroups.com): “FYI: Dr. George Karady passed away on June 10<sup>th</sup>, 2018. He was 87. Dr. Karady served as Chair of the IEEE Lightning & Insulators Subcommittee for many years, and he was also editor of the IEEE Transactions on Power Delivery. He will be missed.”
4. The National EMS Safety Summit will **NOT** be held in Denver on August 29-31, 2018 due to a lack of funding from the State of Colorado. Event organizers will try to secure private funding for 2019.
5. Carl Swanson gave an update on his First Responder Data Collection Project, which has entered its fourth year. To date, four individuals have been struck by lightning. No fatalities have been reported. Carl is waiting for additional information from two first responder agencies.
6. Carl told us a female friend of his and her son were at a little league baseball game during the evening hours. Thunderstorms were in the area and the lightning siren sounded. The coach ignored the warning for over 10 minutes and still nobody had cleared the field. Finally, Carl’s friend spoke to the wife of the coach and told her to tell the coach the field should be cleared due to the lightning in the area. The field was cleared and the coach left. About 5 minutes later, the kids were back on the field playing catch and batting the ball around while lightning and thunder were still present. Carl asked the group why this can still happen in light of the abundance of lightning safety information available from the National Weather Service, the NCAA and other groups. Carl was asked if the alarm was a false alarm and Carl said it was not. Greg Stewart questioned why should there be an active alarm system at all if there is not an automatic protocol for clearing the field.

7. Dr. Phil Yarnell presented a woman who was struck by lightning while in the mountains. The woman said the sky looked somewhat cloudy, but not threatening. As she continued down the trail, she heard thunder and went to her car. The storm appeared to clear and so she went back on the trail. As she walked up the trail, it had started to mist. Precipitation changed to graupel, then to what she called “real rain”. She stopped to put on her rain gear when there was a loud crack. That was the last thing she remembered until she revived and figured she had been hit by lightning. She radioed for help. She thought she was unconscious for approximately 3 to five minutes, but evidence from her coworkers suggests she was unconscious for closer to 10 minutes before she self-revived. She went under some angled trees and knelt on her backpack. She also tossed her water bottle.

Some of her complaints included numbness in her left leg from knee to foot, pain in her teeth and jaw, her shoulders and on the outer part of her right ear. She may have bitten her tongue, as the sides were a bit raw. She had elevated levels of a heart enzyme, troponin, which suggested stress to the heart. Greg Stewart asked if she was experiencing any lasting cognitive effects. She responded that sleep is the only issue, as the incident replays itself over and over in her head.

Lightning safety training is given at the start of each season to persons like this survivor from law enforcement agencies and more recently, from National Weather Service personnel.

8. We spoke via telephone with a man and his female caretaker woman in the Great Lakes area. The man had been struck by lightning approximately 40 years ago as a child and is now a middle-aged man. On the day of the strike the weather started out warm and sunny and then got cloudier and cloudier. The man and nine other family members were picnicking at a local city park when rain began to fall. The family sought shelter under a gazebo. The man, then a child, was dancing atop a picnic table under the gazebo when lightning struck. All in the family were knocked to the ground. The man and his sister were knocked unconscious. Both were taken to the ER at a local hospital. The sister came-to in the ER and was docile. No extra medication was needed for her as she regained consciousness. The man regained consciousness and was combative, swinging his arms. Extra valium was given, which stopped his heart. Following his stay in the hospital, he was paralyzed over almost his entire body, with the exception of limited head and eye movements and with limited movement of his arms and legs. He communicates with head gestures for Yes/No answers. Anything else he wants to say is conveyed with his caretaker going through the alphabet, one letter at a time, to form words and sentences. Memories are spotty at this point in time. The man thinks the whole family may have felt the strike. Hair will not grow in the back of the head near the occipital lobe. Another wound was located in calf of his leg.

Greg mentioned what he perceived as a repeating theme: patients being told (by providers) not to expect an improvement in their condition, setting the stage for doubt in full recovery. He also cited the resilience of patients like Ray, with lasting disabilities, who discover new and creative ways to stay involved and build meaning in their lives despite major physical setbacks.

9. Here follows an excerpted, edited writing from the male survivor and his female caretaker. Names have been changed, place names have been either removed or changed and ages have been removed, all in accordance with HIPAA regulations.

“My name is “Jean”. I have helped “Tom” with many community projects. Tom is an inspiration to anyone who thinks they are unable to make changes on a grand scale. He has been in a wheelchair without the ability to see, verbally communicate, or do any of the simple tasks you or I take for granted. Yet he has been a very active member of our community presenting ideas and trying to find solutions to problems. He can’t speak out of his mouth but he makes sure his voice is heard. He is proof that we all can make a difference. These are the thoughts Tom would like for me to share with you today.

Hi! My name is Tom and I am a lightning strike survivor. All this really means is while I was on a family outing at the age of 12, I had a rude run in with Mother Nature and we tied! After miraculously living through getting smacked on the head by a lightning bolt, I woke up from a coma and couldn’t see, talk, or do much for myself. To say that it was difficult is such an understatement – it was downright terrifying! After three months in the hospital the doctors started making arraignments to have me moved to a nursing home where they expected me to live out my life as they put it, a vegetable. My mom said, “Get my son ready, we are taking him home now.” I did go home that day. I had to travel to my parents’ house in an ambulance and was carried into the house on a stretcher. They had to figure out how to take care of me and every day since then has been a learning experience for everyone. Since I couldn’t talk, it was difficult to convince people that I wasn’t intellectually disabled as well as having physical disabilities. I would like to say this has changed over the years, it may be getting better, but not always.

In fact just 2 months ago I needed an evaluation for an electric Hoyer lift. I was sent to a local evaluation center where I met with an Occupational therapist for 45 minutes and went on my way. I needed a copy of my evaluation for an upcoming doctor appointment and once I received my copy I was shocked to find out I had labeled as impaired under the cognition section. I sent her an email and explained that this had happened in the past and that I understood that I can seem impaired, but that I am not and would like my medical record corrected. I did get an addendum, but it was very weak at best and basically said it is tough to tell if I am in here. I thought that was her job? I was very disappointed in that entire experience.

It was a great day when my younger sister, Susan, came up with the idea for my family to spell to me as a way to communicate. I would spell out words by turning my head or eyes in a certain direction at the appropriate letter. It would be years before someone thought of standardizing the direction that I would use for “yes” and “no”, until then each person speaking to me would decide which direction was which answer. Depending on what I was trying to say it was confusing, sometimes it was frustrating, and other times it was simply amusing.

Then it was time to continue my education, but of course nothing would be the same ever again. I had to find ways to communicate with my new teachers at a completely different school. I first went to a special learning institution for children with disabilities. It was there that we discovered I could participate in class by using Morse code (which I had learned while in the Boy Scouts) by tapping out the letters and words. After two years our class was “main streamed” into the public school system and moved to a public school. I was there for one year and then moved to another public school. My original school was not wheelchair accessible for the upper grades and I would have needed it to be if I continued my education there.

I had an attendant named Joe who went to school with me. It was his job to drive me there, work with me in my classes, give me my tests, and be my voice. Joe would read the test questions to me and I would tap out the answers in Morse code. Then he would write down my responses and it would be turned in. Unless the teacher gave the test orally the rest of the class would just cheat off of me.

When I graduated, it showed people that just because it wasn't supposed to be possible for me, that I was able to do it anyway. Many people said I wouldn't be able to finish school, but they should have seen me at my commencement ceremony. They realized that I can accomplish anything if given the opportunity. Yes, I do rely a great deal on the physical abilities of those around me. With the help of my attendants I have been able to go places and do things that otherwise wouldn't have been possible for someone with my physical limitations.

Tom has since become highly active in his community and he is currently involved with his local Grange to research and promote the natural curative power of hemp.

10. Bruce Beckmann of Alpine Rescue sent an e-mail and said two students of his lightning class contacted him recently and told him that they had turned around about 800 feet from the summit of Grays Peak when signs of lightning came up. They rushed off the peak and ridge and were pummeled by hail and rain accompanied by "tons of lightning" but were well off the peak/ridges. They said they would not have done so had it not been for his class. Two lives were likely saved.
11. Dr. Phil Yarnell's friend Bob Johnson, produced incredibly life-like drawings of some of the LDC members from the photographs he took last month. The subtle details that were captured are quite frankly, stunning. On behalf of those whose received portraits, Thank You Bob!
12. Questions, comments, notification of errors, and critiques of these minutes are welcome. Please forward those to Steve Clark at: [sclarktoto@gmail.com](mailto:sclarktoto@gmail.com). 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: Friday, August 10, 2018, from 11:45 AM to 1:00 PM at St. Anthony Hospital West. Room: Conference Rooms E & F. Meeting Format: TBA.

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.

Ruble, E., 2018: 19-Year Old Revived After Being Struck by Lightning in Boulder County. *KDVR.COM*. July 7, 2018. Link: <https://kdvr.com/2018/07/07/person-struck-by-lightning-in-boulder-county/>

Garcia, M., 2018: 'It's A Miracle': Girlfriend Saved Man's Life Following Lightning Strike. *KCNC-TV*. July 8, 2018. Link: <https://denver.cbslocal.com/2018/07/08/boulder-county-girlfriend-saved-life-lightning-strike/>

Chitnis, S., 2018: Young Couple Urges CPR Training After Lightning Strike Scare. *KCNC-TV*. July 9, 2018. Link: <https://denver.cbslocal.com/2018/07/09/couple-cpr-training-lightning-strike/>

---

Sky-Hi Staff, 2018: Woman Injured by Lightning Strike in Rocky Mountain National Park. *Sky-Hi News*, July 8, 2018. Link: <https://www.skyhinews.com/news/woman-injured-by-lightning-strike-in-rocky-mountain-national-park/>

---

Elsom, D.M., 2018: Factors contributing to a long-term decrease in national lightning fatality rates: case study of the United Kingdom with wider implications. *International Journal of Disaster Risk Reduction*, 31, 341-353. DOI information: 10.1016/j.ijdr.2018.06.001  
Link: <https://authors.elsevier.com/a/1XCc37t2zYxTqy> NOTE: This link is good for only two, maybe three weeks from the broadcast date of these minutes.

---

Yin, S., 2018: Do You Know What Lightning Really Looks Like? *The New York Times*. June 11, 2018. Link: <https://www.nytimes.com/2018/06/11/science/lightning-paintings-photographs.html>

---

Kramer, M., 2018: New Video Shows the Beauty of Lightning Seen from Space. *Mashable.com*. May 22, 2018. Link: [https://mashable.com/2018/05/22/goes-17-lightning-mapper-time-lapse-video/?utm\\_cid=mash-com-Tw-main-link#Se5iZtW9tsqT](https://mashable.com/2018/05/22/goes-17-lightning-mapper-time-lapse-video/?utm_cid=mash-com-Tw-main-link#Se5iZtW9tsqT)

---

