

LIGHTNING DATA CENTER MINUTES

November 11, 2016
ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO
www.lightningdatacenter.org

Quote of the month: "But like a compass seeking north, there lives in me a sure spirit still part. Clouds of doubt are cut asunder, by the lightning and the thunder, shining from the compass of my heart."

Source: Crosby, Stills, Nash & Young, 1988: *Compass*. American Dream, Atlantic Records.

1. Members Present: Clark, Yarnell, Elder, Nibbe, Wells, Swanson, Olson, Paul, Moore, Langford and Kearns. Three survivors were also present. Meeting began at 11:45 AM and ended at 1:05 PM.
2. Carl Swanson started the meeting by announcing he and Steve Clark attended the Emergency Medical Services Association of Colorado (EMSAC) Conference in Keystone, Colorado on Friday, November 3, 2016. Carl had 71 participating agencies in the second year of his First Responder Data Collection project. Following the conference, he expects to have between 90 and 100 agencies participating. From the conference, LDC has been invited to give two presentations: one to the National EMS Conference, which will be held in Denver, Colorado on August 21-23, 2017 and the other for the Colorado Department of Public Health & Environment.
3. Steve Clark had new information on the World Meteorological Organization's (WMO) certification of lightning records. In the last meeting, Ken Langford had asked if the record strike in Oklahoma was a cloud-to-cloud (CC) strike or a cloud-to-ground (CG) strike. From the Early Online Release article in the Bulletin of the American Meteorological Society, it appears the main strike was a CC strike. The article said the strike lasted 5.7 seconds and was attributed to at least 9 positive CG strikes, 4 negative CG strikes, 4 intracloud strikes and 2 sprites.
4. We had two new survivors at the meeting: one whose case had been formally published in the literature and the other who had just learned about the LDC only two days before the meeting.

The first survivor, a woman, was walking her dog back to her house. A storm had been in the area and the rain had just ended. She had a feeling in the air and there was a weird smell. The next thing she knew, she was on the ground, pushed up against a tree and entangled with her dog. She could smell burned hair and flesh. The dog was dead. She called out to friends, who helped her inside. She was taken by ambulance to the hospital. She was paralyzed from the neck down for about an hour following the strike; then she began to gain movement of the extremities. At the hospital, photos were taken showing Lichtenberg figures on her body following the strike. The attending physician at the hospital told her he didn't know what to do with her but that they were going to keep her under observation to make sure she would not start shutting down. She was later released. Sometime during her treatment, EKG patches were placed on her body and ferning patterns developed around them. Those were photographed as well. More recently, she has been through three key fobs for her car. The first one stopped working, so she got her spare and that one stopped working. The same thing happened to a third fob. Her right ankle felt like it had been fused. This condition lasted for several months.

Ken Langford suggested having a support number available at medical facilities for lightning patients and their families. Larry Moore said such a system is in place for the Colorado Search & Rescue organization.

Our second survivor, also a woman, does not recall the exact date of the event, but knows the event occurred sometime within a 3 to 4-week period. She was in her backyard on a sunny afternoon. There was a loud boom. She stood up to look around to see where the sound had come from and just a few seconds later, it happened again, a loud boom sound. She did not see any flash of light. Later, she did recall sensing a “build up” within her body prior to the boom sound. At that point, her hands were trembling badly. Sometime later, she left town to visit her son, a D.O. Her son performed a blood test on her and found it to be normal. At present, she gets cold more quickly in the evening and she still has tremors. She is now self-treating her tremors with the use of a Meridian Energy Analysis Device (MEAD). Per practitioners of MEAD locally, in Vancouver and in China, her voltage levels were “off the charts”. NOTE: MEAD medical treatment is currently in the process of being integrated with conventional medical practice. She had an infection from a pedicure that was almost healed, but got worse after the incident. She said she fatigues more easily and lost large clumps of hair. She also started getting migraine headaches. Her body temperature is about 2 degrees below average. She still has some tingling in the hands and feet and has lost some muscle tone.

One of the members asked Dr. Yarnell about temperature variability. Dr. Yarnell replied temperature complaints vary. Some patients report being cooler, like this survivor, others report being warmer, and still others report being indifferent to temperature all together.

The survivor said she called multiple people about her issue, including MEAD people and the manufacturer of her device. None of them knew any lightning survivors and thus were not able to explain much of anything.

Ken Langford suggested she may have been near an upward streamer, which could explain the lack of a visible flash.

5. Questions, comments, notification of errors, and critiques of these minutes are welcome. Please forward those to Steve Clark at: 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.
6. 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.
7. Next meeting: Friday, December 9, 2016 at 11:45 AM at St. Anthony Hospital West. Room: 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.

Two sources on the World Meteorological Organization's certification of two world lightning records.

Lang, T., S. Pédeboy, W. Rison, R. Cervený, J. Montanyà, S. Chauzy, D. MacGorman, R. Holle, E. Ávila, Y. Zhang, G. Carbin, E. Mansell, Y. Kuleshov, T. Peterson, M. Brunet, F. Driouech, and D. Krahenbuhl, 2016: WMO World Record Lightning Extremes: Longest Reported Flash Distance and Longest Reported Flash Duration. *Bull. Amer. Meteor. Soc.* doi:10.1175/BAMS-D-16-0061.1, in press. (Early Online Release) Link: <http://journals.ametsoc.org/doi/pdf/10.1175/BAMS-D-16-0061.1>

World Meteorological Organization, 2016: WMO Rules on Longest Distance and Longest Duration Lightning Flashes. Press Release Number 10. Sept. 16, 2016. Link: <http://public.wmo.int/en/media/press-release/wmo-rules-longest-distance-and-longest-duration-lightning-flashes>
