

LIGHTNING DATA CENTER MINUTES

May 11, 2018
ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO
www.lightningdatacenter.org

Quote of the Month: “A woman in Georgia, while smoking a pipe, was struck by lightning and killed. Lightning shows very poor judgment, considering the number of boys that may be seen smoking cigarettes.” Norristown Herald, as cited in the *Aspen Evening Chronicle*, November 7, 1888.

Link: <https://www.coloradohistoricnewspapers.org/cgi-bin/colorado?a=d&d=ADC18881107.2.6&srpos=54&e=-----en-20--41--txt-txIN-lightning-----0-#>

1. Members Present: Clark, Wells, Langford, Elder & Swanson. Swanson attended via teleconference. Meeting began at 11:55 AM and ended at 1:00 PM. Clark moderated.
2. Steve Clark presented data provided to him by The International Academy of Emergency Dispatch (IAED). The data came in two files.

The first file summarized all calls that went through the IAED system. Of those calls, there were 719 calls for parties that suffered electrical insult to the body, which amounts to 0.03% of all of the calls logged by the IAED system. Of those calls, 126 were calls involving lightning strikes. The calls were collected from agencies in 15 states. Florida had the most calls, followed by Maryland.

The second file listed all 719 calls that came in regarding electrical insult to the body. Calls were listed by the date and time of the incident (if known), the age and sex of the injured party (if known), the state within which the incident occurred, whether the call was for electric shock or lightning, whether or not the injured party was breathing, whether or not the injured party was conscious, and the begin and end times of the call. A brief description of the incident is also included.

Ken Langford thinks it might be fruitful to compare the call log to lightning strikes reported in Storm Data. Karen Wells suggested LDC write a paper regarding these data.

3. Karen Wells presented an article illustrating the potential danger of lightning for people using Deep Brain Stimulus (DBS) devices. A woman with a rechargeable implantable pulse generator (IPG) was in the process of treatment for neck dystonia, which was going well. She was in her apartment one day when lightning struck. Two appliances, a TV set and an air conditioner, were operating when the lightning hit and were destroyed. Her IPG was not being recharged and the charger was not plugged in at the time of the strike and thus they were not damaged. About an hour after the storm subsided, she noticed a recurrence of the tremors from her neck dystonia and thought her IPG device was damaged. Examination of the device at her clinic found the stimulation had been turned off, but all other stimulation parameters remained unchanged. The stimulation was restored and the woman's neck dystonia resolved almost immediately. The article concluded with some safety recommendations for patients using these devices during thunderstorms and in the presence of man-made EM fields.

4. We watched the 60 Minutes episode “Brian Mancini’s Brain” mentioned by Greg Stewart in last month’s minutes. We briefly discussed blast effects from lightning and reviewed some literature on the Internet. Ken Langford questioned whether or not the use of lightning strike data would be valid for lightning survivors given the location errors in such data. Ken still wants to reach out to this physician, Dr. Dan Perl. Steve Clark suggested Ken draft an initial letter to Dr. Perl for review in next month’s meeting.
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, June 8, 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.

BBC News, 2018. India State Records 36,749 Lightning Strikes in 13 Hours. *BBC.com*. April 26, 2018. Link: <http://www.bbc.com/news/world-asia-india-43905726>

CBS4 Denver, 2018. Lightning Strike Causes Homeowner's Tree to Explode. *Denver.cbslocal.com*. May 2, 2018. Link: <http://denver.cbslocal.com/2018/05/02/lightning-strike-tree-explode/>

Prezelj, N., M. Trost, D. Georgiev and D. Flisar, 2018. Lightning May Pose A Danger to Patients Receiving Deep Brain Stimulation: Case Report. *Journal of Neurosurgery*. May 1, 2018. Link: <http://thejns.org/doi/full/10.3171/2017.12.JNS172258>

Blumenthal, R. and N. West, 2015. Investigating the Risk of Lightning's Pressure Blast Wave. *South African Journal of Science*. Vol 111, Nos 3 and 4. March/April 2015. Link: <http://www.scielo.org.za/pdf/sajs/v111n3-4/10.pdf>

Jones, D., G. Goyer and M. Plooster, 1968. Shock Wave from a Lightning Discharge (Abstract). *Journal of Geophysical Research Atmospheres*. Vol. 73, No. 10, pp. 3121-3127. May 15, 1968. Link: <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/JB073i010p03121>