

LIGHTNING DATA CENTER MINUTES

June 10, 2016

ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO

“...The 45-year-old referee suffered a direct strike and was taken to hospital by helicopter. He was one of three adults seriously injured. The game had just finished when the lightning hit at about 2pm on Saturday, according to a police spokesman. He told German TV: ‘According to what everyone present says, there were no clouds in the sky...so that this incident couldn’t have been expected.’” Link: <http://news.sky.com/story/1703598/one-dead-several-injured-in-lightning-strikes>

1. Meeting began at 11:45 AM and adjourned at 12:55 PM. Members Present: Clark, Yarnell, Wachtel, Patrick, Elder, Claus, Nibbe, Wells and Swanson. Clark moderated.
2. Steve Clark announced the website is still under development. Copywrite information needs to be added to the photographs donated by Ken Langford and Carl Swanson. Some initial content also needs to be added. Once these items are addressed, the website should be ready for launch.
3. Mel Patrick was speaking with another individual about lightning. This person said he noticed a distinct smell around the time of a lightning strike. Mel asked if anyone else had smelled anything at the time of a lightning strike. Members present suggested it was most likely ozone the person was smelling.
4. This meeting was mostly an administrative meeting. The LDC is in danger of losing its CME status and will not have a place to meet if we don't get more physicians and other medical professionals in our meetings. So how do we get more doctors to attend our meetings? Phil said ANY topic that gets doctors in the door is considered CME – even reviewing X-ray images. Howard Wachtel said we need to expand the LDC's mission to include electric shock. Phil said the mission statement should be revised to mention our interest in lightning patient case histories. Howard wants to address the effects of electromagnetism on man. He specifically mentioned the effects of fMRI on humans. Karen Wells thought a regular program would be beneficial. Carl Swanson was concerned about the inclusion of electric shock survivors. His experience with the Lightning Strike Survivors' Listserv (LSSL) found some divisions between lightning survivors and electric shock survivors. His concern is the same divisions will surface amongst the two within LDC if LDC incorporates electric shock.
5. These minutes have been revised with inclusion of related notes and links.

There was discussion of whether LDC should expand its focus to include continuing current hazard, that is, electric shock from sources other than lightning.

Howard Wachtel reiterated that it is as much an issue of magnetic field when it comes to high power transmission line effects. He referenced a study (Savitz, 1988). It was a case-control study of childhood cancer/exposure to magnetic fields.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1128834/>

Howard also mentioned a prior study: Wertheimer N, Leeper E.: Electrical wiring configurations and childhood cancer. Am J Epidemiol. 1979 Mar;109(3):273–284.

From: "EMFS: The Darker Side of Electricity"

(<http://www.ecomall.com/greenshopping/memf.htm>)

"The first scientist to identify the link between EMF exposure and increased cancer risk was epidemiologist Nancy Wertheimer, who conducted an investigation on her own time and with her own money. In 1974, she began driving through residential neighborhoods in Denver, Colorado, hoping to find some pattern that might explain why a particular set of children was stricken with leukemia. Wertheimer soon noticed that the houses of the victims were often located near an electrical transformer." ...

Additional 2014 follow-up from Microwave News: <http://microwavenews.com/news-center/times-retroreport-power-lines>

More discussion of EMFs and cancer (“Coping with the Risk of Cancer in Children Living Near Power Lines”), Abt, Eileen. Link to Introduction:

<http://heinonline.org/HOL/LandingPage?handle=hein.journals/risk5&div=11&id=&page=>

There was discussion of cross-over between effects of lightning strike and continuing current.

Phil Yarnell discussed a proposed 6th mechanism of lightning injury: barotrauma. From internet: "injury caused by a change in air pressure, typically affecting the ear or the lung." "Barotrauma is physical damage to body tissues caused by a difference in pressure between a gas space inside, or in contact with the body, and the surrounding fluid."

We discussed the ways LDC might attract more physician attendance. Phil suggested reaching out to burn centers. Should we expand website in an effort to clarify/explore line-voltage electrical effects? Howard suggested focusing on electrical effects of diagnostic imaging.

Carl said that continuing current effects (electrocution by exposure to wired current) falls outside the realm of lightning and veers away from historic LDC goals and mission. Greg pointed to electrical industry support for University of Florida's Lightning Research Laboratory (<http://www.lightning.ece.ufl.edu>). The Electric Power Research Institute (EPRI) was an early contributor to those efforts. "During summers 1995 to 2007 over 40 researchers (excluding UF faculty, students and staff) from 15 countries representing 4 continents performed experiments at the Center concerned with various aspects of atmospheric electricity, lightning, and lightning protection." Greg commented that many lightning-related issues cross discipline boundaries—just look at Martin Uman and Vladimir Rakov's contribution to our understanding of lightning within the field of electrical engineering.

6. 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.

7. 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.
8. Next meeting: Friday, July 8, 2016 at 11:45 AM at St. Anthony Hospital West in the Pinecone Room.

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.

Odisha: Lightning Claims 17 Lives, Injures Nine. Link: <http://www.dnaindia.com/india/report-odisha-lightning-claims-17-lives-injures-nine-2219031>

11 People Struck by Lightning During Child's Birthday Party in Paris Park. Link: <https://www.washingtonpost.com/news/morning-mix/wp/2016/05/28/11-people-struck-by-lightning-during-childs-birthday-party-in-paris-park/>

German Rock Festival Suspended After 72 Injured in Lightning Storm. Link: <http://abcnews.go.com/Entertainment/wireStory/injured-lightning-german-festival-increases-71-39606770>

VIDEO – Plane Struck by Lightning in China. Link: <http://www.newsflare.com/video/73780/weather-nature/plane-struck-by-lightning-in-china>