

LIGHTNING DATA CENTER MINUTES
August 9, 2013
ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO
On the Web at: www.stanthonyhosp.org/ldc

Monthly Quote: “I didn’t realize I had been struck by lightning [*sic*] until I saw it again.” Customer Lakeisha Brooks, on being struck by lightning in a Houma, Louisiana grocery store. See the link for www.houmatoday.com in the Lightning Links section.

1. The meeting began at 11:50 PM and adjourned at 1:16 PM. Members Present: Clark, Collier, Cherington, Yarnell, Nibbe, Wachtel, Gift, Elder, Swanson, Stoltz and Langford. Clark moderated the meeting.
2. Per the request of Ken Langford, Steve Clark will formally accept a leadership role on behalf of the LDC. Ken’s work schedule requires him to travel quite extensively; thus, Ken has a difficult time making meetings, among other LDC duties. Ken is still a member of the Executive Committee, and will still continue to participate and contribute to the LDC, when he can.
3. LDC member Karen Wells, along with two other co-authors, wrote a paper about librarians' contributions to the Electronic Medical Record (EMR). Information obtained from “evidence-based medicine activities”, is incorporated into the EMR. From the EMR, “order sets” are designed which guide the diagnosis and treatment of patients. Karen has told us before that the LDC's medical activities are part of this “evidence-based medicine”. Phil Yarnell said in line with this, the website fails to mention the interest the LDC has in the effects of lightning strikes and electric shocks on people and that the Mission Statement should be changed to include public outreach. Thank you, Karen, for triggering this discussion via your article. A link to the abstract is in the Lightning Links section below.
4. Phil Yarnell told us that Dr. Mary Ann Cooper is looking for cases where people have been injured by lightning while inside their cars. Carl Swanson recalls the LDC discussing a case back in 2007/2008 where an occupant was struck while on I-70 east of Denver. Steve Clark looked in the 2007 and 2008 calendar-year minutes and did not locate the case Carl is referring to. Ken Langford showed a video clip of a family driving in Utah that was hit by lightning. No one was hurt, but the internal electronics were wiped out and three of the tires were blown out. A link to the video is posted in the Lightning Links section. Steve Clark recalled the recent case of the driver in southern Colorado that was hit and is still having medical issues today. Dr. Cooper is interested only in cases that have been documented, not hearsay or anecdotes. Please e-mail documented cases to her at macooper@uic.edu.

5. Lightning researcher John Jensenius in Maine sent to Ken Langford, a write up on the lightning strike associated with a now-famous photograph of the two young boys, whose hair was standing on end. The photo was taken in California back in 1975. The person on the right, Mike McQuilken, saw an article that Ken Langford had written about the incident. Ken was able to establish a dialog with Mike, who noted Ken had most of it right, but with some parts that were incorrect. Thanks to John, Ken now has a description of the incident from Mike. See "A Hair Raising Experience on Moro Rock" in the Lightning Links section.
6. Carl Swanson made an interesting point. In the last 15 days of July, there were a total of 22 people struck by lightning in Colorado. One individual was struck near Estes Park, and the other 21 were in two groups when they were hit (U.S. Army personnel in Fort Carson, Colorado and migrant farm workers north of Fort Collins, Colorado). All three incidents have links to articles below.
7. Carl Swanson also asked why the media, on the one hand, promotes lightning safety, and then, on the other hand, has their own news teams out in the elements risking being struck. He specifically referred to a 9News (Denver's Channel 9, KUSA) reporter doing a live broadcast in a storm, when a flash of lightning was very close to where they were. Carl thinks this sends a double message to the viewing audience.
8. Carl also told us of a CNN or Fox newscast, which discussed a lightning strike where people inside a car survived. According to Carl, the newscaster said they survived because the rubber in the tires insulated them from the lightning. Carl was beside himself. Ken Langford suggested Carl should have contacted the news agency and advised them accordingly.
9. Michael Cherington's brother-in-law Mike Stoltz was in attendance. Like Dr. Cherington, Mr. Stoltz is also a physician. Dr. Stoltz wondered if there have been any incidents of lightning strikes on the newer composite-built airplanes, such as Boeing's Dreamliner. A Boeing 787 was struck, near Boeing Field in the Seattle area. Ken also found an article describing the new lightning suppression systems are built into these newer planes. These newer planes have wire mesh embedded within the composite material. On some of the earlier designs, the entire plane was covered by mesh, but due to weight concerns, the later designs had mesh on the wings, nose, and tail of the airplane, since those are the parts that are struck most often. See the Lightning Links section for more information.
10. Phil Yarnell reports the patient he presented last month has reported no advance of the adverse conditions he is dealing with. Because of last month's meeting, patient now has a splint designed to keep his hand in a more naturally curved position, like holding a tennis ball. Additionally, patient has had some encouraging development in response to warm sand therapy, which was discussed last month. Patient now has some movement, albeit limited, of the uppermost parts of his fingers, on the hand with the dystonia.

Both Phil Yarnell and Michael Cherington recalled there were two famous pianists, who suffered from musicians' dystonia, while playing the piano. When they sit down to play, the position they are in triggers the cramping. These pianists went on to compose music for one hand. Ken Langford recalled being at a concert where the keyboardist's hand "just went dumb on him" during the show. Ken wondered if the dystonia could be seen with imaging equipment and the offending area be "jumped" to restore correct operation. Phil doesn't think current imaging technologies would reveal any physical damage. A link about musicians' dystonia is in the Lightning Links section.

11. Steve Clark presented a case of a woman struck by lightning, while inside a Louisiana supermarket. She was standing by the checkout lane when she was hit. A news video (see Lightning Links) showed a foot-shaped burn mark on the floor where she was standing. She reported it initially felt like a breeze and then the pain came. One of her shoes was blown off. As she moved away from the area, a second flash hit the spot where she had been standing. According to the newscast, the same area of the same store was hit one year earlier.

In our discussion, there was some controversy as what the second flash was. Was it actual lightning, or was it some other electrical discharge? Steve Clark said when lightning flickers, that is an indication of multiple surges of current flowing through the ionized channel. Howard Wachtel thought the second flash could be the result of induced charges through the store's metallic structure, piping, wires, etc. Alan Elder told us the store is basically a metal roof supported by steel beams and that it should behave like a Faraday cage. He said, since a flash even occurred inside the building at all, indicates poor electrical bonding of the metallic components of the structure. NOTE: I tried to find a news story of a second, earlier lightning strike at the same store in 2012 in houmatoday.com. I was unable to locate any such story.

12. Next meeting: Friday, September 13, 2013 at 11:45 AM at St. Anthony Hospital West. Conference Room TBA.

Respectfully Submitted,

Steven E. Clark, Consulting Meteorologist

In Case You Missed It...Lightning Links

This is a monthly listing of news, articles, websites, and videos about lightning and allied areas as reported in the media. 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. Enjoy!

"Two farm Workers in Critical Condition After Nine Struck by Lightning North of Fort Collins"

<http://www.9news.com/news/article/345827/339/Farm-workers-struck-by-lightning-near-Ft-Collins>

"Workplace-Safety Inspectors Investigating Lightning Strike That Hit Farm Workers North of Fort Collins"

<http://www.coloradoan.com/apps/pbcs.dll/article?AID=2013307220023>

"Rocky Mtn National Park Visitor Struck by Lightning"

<http://www.thedenverchannel.com/news/local-news/rocky-mtn-national-park-visitor-struck-by-lightning>

"Lightning Strikes Woman Shopping for Groceries"

<http://wtvr.com/2013/07/18/lightning-strikes-woman-shopping-for-groceries/>

"Lightning Strikes Woman Inside Supermarket"

<http://www.houmatoday.com/article/20130715/HURBLOG/130719713>

"3 Hikers Injured After Lightning Strike at Glacier"

http://missoulian.com/news/state-and-regional/montana/hikers-injured-after-lightning-strike-in-glacier/article_754dda13-4e4b-541a-9bf0-671adccdbc4f.html

"Family Thanks Glacier Hikers Who saved 3 Hit By Lightning"

http://missoulian.com/news/state-and-regional/family-thanks-glacier-hikers-who-saved-hit-by-lightning/article_f94b84dc-f020-11e2-92f3-0019bb2963f4.html

"Hiker Tells of Heroes Who Saved Glacier Lightning Victims"

http://missoulian.com/news/local/hiker-tells-of-heroes-who-saved-glacier-lightning-victims/article_b211a12e-f34e-11e2-b64d-0019bb2963f4.html

“Woodville Man Calls Pain of Being Struck by Lightning ‘Unbearable’”

<http://bangordailynews.com/2013/07/22/news/penobscot/woodville-man-calls-pain-of-being-struck-by-lightning-unbearable/>

“Lebanon Teen Struck by Lightning in His Home Sunday Released from the Hospital”

<http://bangordailynews.com/2013/06/25/news/portland/lebanon-teen-struck-by-lightning-in-his-home-sunday-released-from-the-hospital/?ref=relatedBox>

From our colleagues at the Yahoo Lightning Safety Group:

“Lightning Sets Roof on Fire as Storms Hit Scotland”

<http://www.scotsman.com/news/scotland/top-stories/lightning-sets-roof-on-fire-as-storms-hit-scotland-1-3016671>

“Two Killed, One Injured by Lightning Near Jacobs Lake”

http://azdailysun.com/news/local/two-killed-one-injured-by-lightning-near-jacob-lake/article_f9f07db4-f496-11e2-a443-0019bb2963f4.html

“12 Fort Carson Soldiers Injured in Colorado Lightning Strike”

<http://gazette.com/12-fort-carson-soldiers-injured-in-colorado-lightning-strike/article/1504228>

“Drunk Man is Electrocuted Peeing on 3rd Rail of G Line”

http://www.nypost.com/p/news/local/brooklyn/drunk_mans_dies_after_peeing_on_7AXR5nZq5OKApg9vuEQGIL?utm_medium=rss&utm_content=%20%20%20%20%20%20%20%20%20%20Brooklyn

“Lightning ‘Halos’ Could Help Track Fierce Thunderstorms”

<http://phys.org/news/2013-08-lightning-halos-track-fierce-thunderstorms.html>

“Lightning-Induced Extensive Charge Sheets Provide Long Range Electrostatic Thunderstorm Detection” (Abstract) <http://prl.aps.org/abstract/PRL/v111/i4/e045003> Phys Review Letters, Vol. 111, issue 4

“Invite Yourself to the Table: Librarian Contributions to the Electronic Medical Record” (Article Abstract)

<http://www.tandfonline.com/doi/full/10.1080/02763869.2013.807087#tabModule>

The full article is available to the medical community via PubMed.

Utah Lightning Strike to Car, While Being Driven

<http://screen.yahoo.com/lightning-strikes-utah-family-road-145416787.html>

“A Hair Raising Experience on Moro Rock”

<http://california-hiking.socialpositive.com/c/stories/A-Hair-Raising-Experience-on-Moro-Rock-133301>

Dystonia Medical Research Foundation’s website on Musicians Dystonia:

http://www.dystonia-foundation.org/pages/musician_s_dystonias/55.php

Lightning and Composite Aircraft

“787 Dreamliner Survives First Lightning Strike”

http://seattletimes.com/html/business/technology/2012145833_boeing18.html

“Grounded: Where the Boeing Dreamliner Went Wrong”

<http://www.newscientist.com/article/mg21729036.700-grounded-where-the-boeing-dreamliner-went-wrong.html#.UqU8p220Qms>
