

**LIGHTNING DATA CENTER MINUTES**  
**August 10, 2012**  
**ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO**

Monthly Quote: "Unfortunately, those two folks took shelter under a tree. It isn't a very good place to take shelter because lightning tends to hit the tallest object". Meteorologist Brian Kyle, commenting on the fatal lightning strike at a Houston-area soccer game (See below). Citation in "Lightning in the News" section.

1. The meeting began at 11:45 AM and adjourned at 1:10 PM. Members present: Clark, Yarnell, Gift, Wachtel, Wells, Nibbe, and Stewart. Clark moderated the meeting.
2. The website is currently being set up by Carrie Hobbs. Hopefully, we'll have a rudimentary set of webpages set up before the September meeting.
3. Clark presented several articles detailing lightning strike on people and a short article on lightning and consumer electronics. Links to these articles can be found in the "Lightning in the News" section.

First, lightning in Pennsylvania killed an Amish woman and her unborn child. The woman, her husband, and two children were picking berries, when a storm began and rain started to fall. The woman sought shelter under one tree and her husband and two kids took shelter under another tree. She was struck by lightning shortly thereafter.

Second, while on speed-enforcement duty, a Longmont, CO, motorcycle policeman thinks he was struck by lightning. He heard a loud clap of what he thought was thunder and then was knocked to the ground. Doctors do not think he took a direct hit, as there were not any burn marks. He did report having a headache, back pain, and labored breathing after the strike. He was able to get back on his feet and radio for medical help.

Third, a lightning strike at the inaugural Whitby Ribfest, in Whitby, Ontario, Canada, injured 17 people sheltering in a dining tent while it was raining. There were approximately 200 people inside the tent and around 2000 people in the park where the event was held. Initial speculation was the lightning struck the metal support pole of the tent, but fire officials later determined the lightning had struck close by and the ground current is what injured the people. The event chairman noted if the ground inside the tent had been wetter, far more people would have been hurt. Notably, nobody recalled any lightning prior to the start of rainfall.

Fourth, two people were killed and another was injured at a Houston-area soccer field. A soccer game was being played, when a storm came just before noon. Thunder was heard, and rain began falling. Three men sought shelter under a tree. Lightning struck the tree, knocking all three men to the ground. One man was dead at the scene, with a large hole in his heel and fanning down his back. The second and third men were taken to a hospital, where the second was pronounced dead. The third was in stable condition. In a separate incident, a utility worker was hit in the head by lightning while helping tie something down. CPR was attempted to no avail. The storm approached while they were installing a utility pole. The men got into their truck, but later got out to tie something down, when the lightning hit.

Fifth, a short article from the Chicago Tribune notes, according to the Insurance Information Institute, that the cost from lightning claims nearly doubled from 2004 to 2011, despite a large drop in the number of claims. The decline in claims was attributed to the usage of lightning suppression equipment. Increased costs are due to increased home usage of electronic devices such as flat-screen TVs, computers, and video game consoles, which has doubled the costs of lightning damage. Part of the increased cost is blamed on the earthquake/tsunami in Japan, as well as flooding in Thailand, which disrupted supply chains.

4. Greg Stewart presented two news articles.

In Atlanta, a worker was struck by lightning while washing windows at a downtown hotel. His name was not released and his condition remains unknown.

At Pocono Raceway in Pennsylvania, lightning killed 1 person and injured 9 others. Storms rolled in and torrential rains fell. Race officials called the race at lap 98 of 160. Afterwards, fans were told to leave the grandstands due to lightning. It was while fans were in the parking lot headed to their cars, when two lightning flashes occurred – one in the parking lot and the other near Gate 3. Injured fans were taken to area hospitals, most with minor to moderate injuries. One man, with critical injuries, later died at the hospital. Clark found an article on this and there are some telling comments in it. First, the article notes: “The storm, which anyone who had access to any weather website knew was on its way for at least 30 minutes, arrived at 4:40 PM, causing NASCAR officials to throw a yellow caution flag...” Second, the article provides a timeline of events:

- At 4:21 PM, about 30 minutes before the race was officially called, Pocono Raceway issued the following warning on its Twitter and Facebook accounts: “ATTENTION FANS: Severe thunderstorms are in the area which will produce high winds and lightning. Should arrive in 10-15 mins.”
- At 4:59 PM, the following message was posted on the track’s Twitter and Facebook pages: “ATTENTION FANS: Be advised, seek shelter as severe winds and lightning are in our area.”

- At 5:50 PM, track President Brandon Igdalsky tweeted: “Hoping for the safety of all the fans that are leaving in this crazy storm. Please seek shelter as there is a lot of cloud 2 ground lightning.”
- According to a separate article, the race was called at 4:54 PM and the strikes occurred at 5:01 PM.

Stewart also presented an article containing some comments from star NASCAR driver Carl Edwards: “I know there’s a lot of discussion about what NASCAR or the track should have done, but at the end of the day, it’s Mother Nature, and it’s very difficult for anyone to take responsibility and say, ‘We should have done this or done that.’ It’s something that I would have never expected. I walked in the middle of that rainstorm and I ignorantly didn’t think about the dangers that were there. I think we all maybe take that stuff a little too lightly.”

On the following Monday, Pocono Raceway officials and NASCAR were reviewing policies for disseminating inclement weather information to fans during races and procedures for getting fans to safety.

As these minute go to press, the Pocono Raceway website has provided an update on the strike victims and has announced “The Pennsylvania Memorial Fund” to aid the victims of the tragedy. See more at: <http://www.poconoraceway.com/>

5. Greg called our attention to a lightning safety issue from Michael Utley, founder of struckbylightning.org. An article on Utley’s blog expresses extreme concern over lightning safety guidelines issued jointly by the National Weather Service and the U.S. Lifeguard Association (USLA). It appears the main concerns are over waiting to evacuate people when lightning is within 10 miles of your location, rather than some farther distance away, and the usage of the “flash to bang” method of tracking lightning. Utley has spoken to Chris Brewer of the USLA and Brewer thinks they are right and Utley insists they are “dead wrong”.
6. Howard Wachtel brought another safety issue to our attention. The public swimming pool he uses in Boulder has a 20-foot concrete apron surrounding the water and trees beyond the apron. When lightning threatens, patrons are told to go seek shelter under the trees. Howard spoke to one of the employees about that and the employee agreed the direction given to the patrons is dumb, but that he is simply providing directions given from supervisors. Members of the group thought it would be better to have patrons go inside the locker room or to their parked cars. One of the members said this is a lawsuit waiting to happen.
7. Greg noted that Ken Langford had mentioned Ron Holle asking about property damage caused by lightning. Greg found the NFPA has some information regarding this in the report authored by Ben Evarts. To get the full article, you must register with the NFPA to get an account. The executive summary of the report is available here:

<http://www.nfpa.org/itemDetail.asp?categoryID=2465&itemID=55710&URL=Research/Statistical%20reports/Major%20causes/&cookie%5Ftest=1>

On average, each year, from 2004-2008, U.S. fire departments responded to 24,600 fires started by lightning, which resulted in 12 civilian fatalities, 47 civilian injuries, and \$407 million in direct property damage each year. Most of these numbers were associated with home fires.

The NFPA also has a lightning Fact Sheet and Lightning Safety Tips at these respective links: <http://www.nfpa.org/assets/files/PDF/LightningFactSheet.pdf>

<http://www.nfpa.org/itemDetail.asp?categoryID=1712&itemID=41193&URL=Research%20&%20Reports/Fact%20sheets/Lightning/Lightning%20safety%20tips>

Greg also noted Rich Kithil's site is also an abundant source of information on property damage caused by lightning. Visit [www.lightningsafety.com](http://www.lightningsafety.com).

8. Phil reported on a man who was standing outdoors. The hair on his arms stood on end and then he heard a boom. He was stunned, and is thought to have had a concussion. He has difficulty concentrating and does poorly on neurological tests. Phil suspects lightning, but cannot be sure until he obtains the case file. Clark said radar records could be pulled for the date and time in question to determine if storms were in the area.
9. In closing, Greg informed us of some videos and interesting photos. The [struckbylightning.org](http://struckbylightning.org) website has a series of short videos about lightning in which Dr. Mary Ann Cooper makes an appearance. One is about flashover, another is about lightning and indoor injuries, and still another illustrates how lightning is a multiple path threat and uses a clip showing soccer players being knocked down from a strike. Last, but perhaps most curious, is the "metal vs. wood" video. Does metal "attract" lightning more so than wood? Watch the video and find out.

In an article written by Claudie Zap in her blog "The Upshot" dated April 13, 2012, She writes about a rare photo of lightning over the Bay Bridge captured by Phil McGrew, from his office, which overlooks San Francisco Bay. The link to the article is in the "Lightning in the News" section.

Finally, Greg showed us some interesting photos of lightning associated with the Icelandic volcano eruption in 2011.

10. Next meeting: Friday, September 14, 2012 at 11:45 AM at St. Anthony Hospital West. Conference Room TBA. On October 12, Howard Wachtel is tentatively set to present the lightning safety issue at the Boulder pool, hopefully with a City of Boulder official present. NOTE! The Bighorn Room is NO LONGER the "official home" of the LDC. Hospital administration needs the space.

Respectfully Submitted,

Steven E. Clark, Consulting Meteorologist

### **In Case You Missed It...Lightning in the News**

**This is a monthly listing of news and videos about lightning and allied areas as reported in the media. A headline is listed, followed by a link to the article. Please note that some of the links are perishable, which means you'll need to go to the source for the article. Enjoy!**

Lightning Kills Pregnant Woman

<http://www.dailyamerican.com/news/somerset/da-ot-lightning-kills-pregnant-woman-20120724,0,5481982,print.story>

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Lightning Kills 1, Hurts 9 at Race

<http://www.timesleader.com/stories/Lightning-kills-1-hurts-9-at-race,187033>

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Carl Edwards Speaks to Injured Fan, Calls for Safety

<http://www.usatoday.com/sports/motor/nascar/story/2012-08-07/Carl-Edwards-speaks-to-injured-Pocono-fan/56854200/1>

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Lightning Kills 2, Injures Another at Houston Soccer Field

<http://www.chron.com/default/article/Lightning-kills-2-injures-another-at-Houston-3708898.php>

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From the Yahoo Lightning Group: A Special Issue of Journal of Lightning Research dedicated to the 30<sup>th</sup> International Conference on Lightning Protection, held in Cagliari, Italy in September 2010, can be found at:

<http://www.benthamsience.com/open/jlr/openaccess2.htm>

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UPDATED: Lightning Strike at Whitby Ribfest Leaves Organizers Shaken

<http://www.durhamregion.com/news/article/1400900--updated-lightning-strike-at-whitby-ribfest-leaves-organizers-shaken>

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Longmont Police Officer Recalls “Thor’s Hammer” in Lightning Incident

[http://www.timescall.com/news/longmont-local-news/ci\\_20967035/longmont-police-officer-recounts-thors-hammer-lightning-incident?IADID=Search-www.timescall.com-www.timescall.com](http://www.timescall.com/news/longmont-local-news/ci_20967035/longmont-police-officer-recounts-thors-hammer-lightning-incident?IADID=Search-www.timescall.com-www.timescall.com)

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Bay Bridge Lightning Photo and Article

<http://news.yahoo.com/blogs/upshot/lightning-strikes-bay-bridge-rare-storm-rarer-shot-185401421.html>

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3 Cases of Lightning Fatalities to Farm Animals in China from Chinese news agencies:

53 Pigs Died on July 6, 2012- <http://www.ministryoftofu.com/2012/07/photos-53-pigs-struck-by-lightning-to-death-netizens-you-hit-the-wrong-targets/>

143 Goats Died on July 10, 2012 - [http://www.china.org.cn/china/2012-07/12/content\\_25889981.htm](http://www.china.org.cn/china/2012-07/12/content_25889981.htm)

173 Sheep Died on July 10, 2012 - <http://english.peopledaily.com.cn/90882/7874427.html>