

LIGHTNING DATA CENTER MINUTES
January 10, 2014
ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO
On the Web at: www.stanthonyhosp.org/ldc

Monthly Quote: “There was one cloud’, one teammate said. ‘It was nothing,’ said another.” Description of sky conditions following a lightning strike that injured 4 high school softball players in Indiana. On the web at:

<http://www.wave3.com/story/17170431/students-injured-when-lightning-strikes-girls-softball-field>

1. Meeting began at 12:05 PM and adjourned at 1:05 PM. Members Present: Collier, Yarnell, Elder, Swanson, Nibbe, Schoessen, Gift, and Cui-Gift. Swanson moderated the meeting.
2. A special thanks is due to Carl Swanson, for stepping in on very short notice to moderate this meeting and to record notes for these minutes, since I was absent due to a cold. Thank you, Carl.
3. Phil Yarnell asked if anyone knew of the pathology of lightning injury resulting from blast effects of lightning, akin to blast effects from explosives. None of the attendees knew of any. Carl has posed this question to the LSSL group and is awaiting responses. Al Nibbe noted soldiers in WWII were taught the Kiefer backstroke, named after Olympic Champion swimmer Adolph Kiefer, which partially submerges the stomach and other soft organs in the water and thus minimizes the blast effects from artillery. Phil also asked if veterans returning from Iraq have PTSD and other physical effects: e.g. bleeding from noses and ears, then could the same be happening to lightning strike victims that report being knocked down, not from the electricity, but from the blast effects.
4. The question was asked: “Can a person be injured by the upward streamer before it connects?” Carl thought no since the streamer is not yet connected to form a lightning channel. He thinks someone may feel tingling, hair standing on end, etc., since electrically charged particles are presumably streaming upwards to connect.
5. Robert Gift said during a July 1969 trip to the rim of the Grand Canyon, under gray skies with no rain falling, he held his finger up in the air and it started to whistle. It was a high-pitched sound. He also said he heard some trees whistling while standing on the rim. Robert also said in September 1969 he was under an active thunderstorm in the Denver area and a street sign was whistling. Paul Schoessen asked if the raised finger had a corona discharge. Robert said he didn’t see any discharge. Someone else asked if Robert’s fillings in his teeth could be causing the auditory sensation.

- On a related note, Carl said when he was at Langmeir National Lab in New Mexico in 1998, there was a Faraday cage, which was a single wire surrounding the outdoor observation deck. The wire would hum as cumulus congestus clouds were present. As the clouds would mature, the volume of the hum would increase. As the clouds dissipated or moved away, the intensity would decay and ultimately quit. The hum was described as being like a 60 Hz hum. Carl also noted he saw St. Elmo's fire during an intense thunderstorm at night.
6. Al Nibbe told the group about a man that had been struck by lightning back in 1941. His left arm was against a gasoline pump when he was struck. The man has an extension cord with two male ends. As a result of the strike, the man is able to plug one end into the AC outlet, and touch the other end to his left hand and feels no shock. If he touches the right hand, he does feel the shock. Carl wondered why he hasn't died, or at least had a heart attack after touching his left side. After all, it is 110V AC current that he is coming into contact with. Suggested possibilities included non-conduction and non-grounding.
 7. Carl presented an article from NBC News noting lightning fatalities in the U.S. during 2013 were the lowest on record. Per the article, 23 people died from lightning strikes in 2013, versus 432 people killed in 1943, the worst year for lightning fatalities on record. John Jensenius, NOAA's lightning safety specialist, attributed the reduction to continued promotion of lightning safety and awareness. Carl noted the article does not mention the survival rate. He wondered if the number of people surviving a lightning strike has also decreased, or, if the same number of people were getting hit and more were surviving. Carl says if the former is true, then the message is getting out, but if the latter is true, then we are not doing as good a job as we think we are. Carl noted 22 people were struck in August 2013 in Colorado.
 8. Next meeting: Friday, February 14, 2014 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 periodicals, 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!

“Man Electrocuted in Snyder”

http://www.fortmorgantimes.com/fort-morgan-local-news/ci_24839622/man-electrocuted-snyder

“Lightning Strikes Killed Fewer Americans Than Ever in 2013”

http://usnews.nbcnews.com/_news/2014/01/02/22143525-lightning-strikes-killed-fewer-americans-than-ever-in-2013?lite
