

LIGHTNING DATA CENTER MINUTES
June 8, 2012
ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO

Monthly Quote: ““It works!” my son cried. “Look at the cat!” She had suddenly become very large, her hair bristling all over.”” - from “How to Build a Lightning Machine” in Reader's Digest, May 1951. Anecdotal tale of a father-son project to build and demonstrate a Van De Graff generator.

1. The meeting began at 11:45 AM and adjourned at 1:05 PM. Members present: Clark, Yarnell, Gift, Cui-Gift, Wachtel, Elder, Cherington (Michael and Nancy), Brown, Wells, and Nibbe. Clark moderated the meeting.
2. LDC has received communications from St. Anthony's personnel indicating a very basic website can be set up and running. The Executive Committee is working with St. Anthony's to get this done. Stay tuned for further updates.
3. Clark presented several things.

First, a brief article in the Denver Post noted children who have several CT scans have a slightly higher risk of brain cancer and leukemia, although the risk is still relatively small and outweighed by the need to have the analysis done. This was published in an online article of The Lancet. Physicians present at the meeting agreed that it is better to have the tests be performed. Phil Yarnell said CT scans can be performed up to once every three hours for the head, neck, chest and abdominal area. Phil also noted there are MRI units up to 3 Teslas in routine use and up to 7 Teslas in research use. Here's the link to a more robust online article: http://www.denverpost.com/ci_20798336/child-ct-scans-could-raise-cancer-risk-slightly?IADID=Search-www.denverpost.com-www.denverpost.com

Second, Robert Gift sent Clark a YouTube video of an airhorn blowing in anticipation of a lightning strike. Comments in the video showed the device is part of the “ThorGuard” lightning prediction system. For more information, visit www.thorguard.com. The LDC's Ron Holle is mentioned in their FAQ link.

Third, shortly after last month's meeting, Dr. Cherington brought to our attention an abstract from PubMed: Brain Electromagnetic Activity and Lightning: Potentially Congruent Scale-Invariant Quantitative Properties". I will quote the abstract directly: "The space-time characteristics of the axonal action potential are remarkably similar to the scaled equivalents of lightning. The energy and current densities from these transients within their respective volumes or cross-sectional areas are the same order of magnitude." The author notes careful examination of the characteristics of lightning could lead to a better understanding of neurocognitive processes. The author is M.A. Persinger. This man has spent many years investigating the effects of electromagnetism on the brain, including the stimulation of the brain using electromagnetic coils to induce altered states of consciousness.

Fourth, Greg Stewart reminds us that National Lightning Safety Awareness Week is June 24-30, 2012.

Fifth, the IEEE published in what appears to be their newsletter, an article about one of their members, Hartano, who started shooting photos of building damaged by lightning as a hobby, which now has become a career. Hartano is a member of the Yahoo Lightning Group. His work has helped bring constructive change to international building codes. Here's the link to the article:
<http://staging.theinstitute.ieee.org/people/hobbies/parttime-passions-bringing-nature-into-focus>

Sixth, and last, a group called blitzotung.org, is a hobby group dedicated to the amateur construction of lightning detection equipment. For those who are electronics enthusiasts, this is a site for you. There are a fair number of these stations on Europe, especially Germany, France, and the UK. At present, it appears there are only three members in the US. Here in the States, this could be a potentially useful educational tool in our nation's school systems. One possible project is to have students build a citywide network of these detectors and see how the data obtained compares to NLDN and USPLN. To learn more, visit <http://www.usatoa.com/> or www.blitzortung.org/.

4. One of our members, Roz Brown, is a spotter for the National Weather Service's Skywarn program. He gave a quick summary of what spotters do. Spotters may be asked to position themselves to monitor thunderstorms for potential tornado development, verify hailstone sizes, or inspect local streams and creeks to check for flooding. These are all "ground-truth" observations, which ultimately help the National Weather Service continue to improve the accuracy and timing of advisories, watches, and warnings. Roz also showed us the lightning safety sign: "When It Roars, Go Indoors!" This sign is being handed out to the public.
5. Al Nibbe told us of a house where lightning hit the ridgeline on the roof, and knocked off a good-sized chunk of the roof over the bathroom. This damage occurred within the last week.

6. Alan Elder brought in an article from the July 2012 edition of Flight Training magazine. The Air Safety Institute is coming out with “Storm Week”, which runs June 11-15, 2012. It is intended to heighten awareness of aviation safety during severe and inclement weather. For more information, visit www.airsafetyinstitute.org/thunderstormspotlight.
7. Some of the members expressed interest in having either a lunch or mid-week evening meeting at the Buckhorn Exchange, so we can hear Roz play for us. For those who don't know, Roz sings all kinds of songs – folk, cowboy, 50s through 70s, etc., while playing the autoharp. Clark will look into that.
8. Next meeting: Friday, June 8, 2012 at 11:45 AM at St. Anthony Hospital West in the Bighorn Room. Subject: PLEASE NOTE: The Bighorn Room is now the “official home” of the LDC.

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!

No Items this month.